A CHRONOLOGICAL ARRANGEMENT OF THE COINS OF CHIOS

BY

J. MAVROGORDATO

REPRINTED FROM THE 'NUMISMATIC CHRONICLE'
FOURTH SERIES, VOLS. XV–XVIII

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With the author's compliments.

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TABLE OF CONTENTS

PAGE

INTRODUCTORY:

Duration of coinage at Chios. The Sphinx and its accessories. Commercial importance of Chios in the ancient world. Early inhabitants of the island. The Minoans. Oenopion. Weight standards 1-11

Oldest surviving coins probably of silver. Confusion of weight standards among them. Evolution of local standard 11-17

PERIOD I. 625-575 B.C.

Latter days of Ionian league. Relations of Chios with Miletus; and with Naukratis. Early school of sculpture at Chios. Aeginetic staters with Sphinx not a Chian issue. Probable seat of origin of Sphinx the Pangaean country-side. Oldest electrum coins. Pl. I. 1-5 . . 17-26

PERIOD II. 575 (?)-545 B.C.

Commercial prosperity till overthrow of league by Croesus. Consequent cessation of electrum coinage. Electrum and silver issues of the period. Symbols on silver didrachms. Pl. I. 6-14 26-35

PERIOD III. 545 500 B.C.

Silver issues more plentiful. Rise of the tyrants. Strattis. Addition of the amphora to the coin type. Silver issues of the period. Evidence from the Taranto find as to date of present issues. Pl. II. 1-9 35-46

PERIOD IV. 500 478 B.C.

Ionian revolt. Special issue of electrum. Contemporary silver coins so far unknown. Devastation of Chios. Inhabitants restored by Artaphernes. Battle of Mycale. Final disappearance of the tyrants. Pl. II. 10. . . 46-52

Note on Miss A. Baldwin's article in *Journal of the American Num. Society* on the electrum and silver coins of Chios issued during the sixth, fifth, and fourth centuries B.C. 53-6

PAGE

PERIOD V. 478–431 (?) B.C.
Height of Chian prosperity under oligarchical government. Coinage consists of silver didrachms and tetrabols. Addition of bunch of grapes to coin type. Rise of democratic party under influence of Athens. Last issue of electrum represented by unique stater at Berlin. The various issues of the period. Pl. III. 1–9 56–65

PERIOD VI. 431 (?)–412 B.C.
Growth of Athenian influence exemplified by change in coinage. Actual date of change uncertain, though before Peloponnesian war. Decree of Clearchus. New coinage composed of tetradrachms, drachms, and hemidrachms. Methods of striking. Revolt from Athens after Syracusan disaster and return of oligarchs to power. Symbols and letters on the coins. Suggested early bronze issues. Coins of the period. Difficulty of fixing exact position in series of drachms with letters. Arguments supporting the attribution of bronze to this period. Pl. III. 10–22, and Pl. IV. 1–3 65–86

PERIOD VII. 412–334 B.C.
Troubles under Spartan and later rulers. Gradual loss of prosperity, but monetary issues plentiful. Names of magistrates on coinage. At least five of them known to history. References by Thucydides and Xenophon to contemporary tetradrachms. The Pityos find and its value for fixing date of present issues. Uncertainty of its upper limit. Summary of weights of silver coins. Large increase in bronze coinage. General use on it of word XIOΣ. Silver and bronze issues of the period. Last of Chian standard. Pl. IV. 4–19 86–121

List of magistrates belonging to Period VII . . . 122

Summary of Pityos find 123–4

PERIOD VIII. 334–190 B.C.
Probable gap in monetary issues between 334 and 301 B.C. Unlikelihood that this should have been prolonged into third century. Conditions of time favourable to coinage. Issues suggested for the period provided by recent find of bronze and the earliest Attic drachms. Symbols on the drachms. Coins of the period. Pl. V. 1–9 . . . 125–39

List of magistrates belonging to Period VIII . . . 140

PAGE

PERIOD IX. 190–88 B.C.
Prosperity of Chios during second century. Arguments in favour of attributing a large proportion of remaining autonomous issues to this period instead of to next. Period divisible into two portions before and after 133 B.C. Reasons for distribution of the various coin groups between them. Mithradates and his deportation of the islanders. The tetradrachms, drachms, and bronze of first half-period. The drachms and bronze of second half-period. Difficulty of resolving monograms on tetradrachms. Possibility that letters ΠΟ may refer to Athene Poliouchos. Reasons for supposing that at least two magistrates were responsible for the coinage. Symbols. Countermark on bronze probably a local one. Disappearance of Ionic forms among magistrates' names. Pl. V. 10–14, and Pl. VI . . 141–97

List of magistrates belonging to first half of Period IX . 198

List of magistrates belonging to second half of Period IX . 199

PERIOD X. 84 B.C.—Reign of Augustus.
Chios a "free city" of the Roman empire. No silver struck after accession of Augustus with one exception. Antiochus of Commagene. Poverty of the islanders after exile in Pontus. Cicero's visit to Chios. Foreign benefactors. Herod the Great. Increased variety of designs on coinage. New divisional silver piece. Innovations in type. Silver and bronze issues of the period. Points of style and fabric differentiating them from those attributed to last period. Magistrates who may have officiated both before and after exile in Pontus. Scymnus the geographer. Sphinx as emblem of the chthonic deities. Symbols and mint-marks. Prow versus bunch of grapes. Unique employment of the word ΧΙΩΝ on a drachm. Roman names among the magistrates. Summary of weights of Attic drachms. Names with patronymics. Pl. VII 201–50

List of magistrates belonging to Period X 251

PERIOD XI. Reign of Augustus—A.D. 268.
No local history. New bronze coinage imperial in general character, though with strong autonomous characteristics. Sphinx remains sole obverse type. All issues except Homereia marked with value. Assaria. Obols. Multiples of the chalkous. Mixed Greek and Roman influence, latter increasing with time. Correlation of different denomina-

PAGE

tions. Standard of weight. Successive reductions in standard and evolution of style. Four sub-periods. Their limits, and principal features of coins assigned to each. Misspellings in inscriptions. Coins of sub-period α. Early assarion and drachms with name of Antiochus. The Homereia. Coins of sub-period β. Highest level of art. Oenopion. Coins of sub-period γ. Disappearance of obol. Tetrachalkon. Coins of sub-period δ. Degraded style and much reduced weights. Large variety of types. Impossibility of determining order of succession. Pl. VIII and Pl. IX 253–321

Letter from Mr. E. T. Newell with regard to tetradrachms of Alexandrine types and to the restoration of a doubtful reading 321

Concluding remarks 321-2

Table of imperial issues showing types characteristic of each denomination and the weights prevailing during the four sub-periods 323-4

List of magistrates belonging to Period XI . . . 325

Summary of magistrates' names with their approximate dates 325-7

SUPPLEMENT. Two unpublished varieties and a new magistrate. Some obscure points made clear 328–31

A CHRONOLOGICAL ARRANGEMENT OF THE COINS OF CHIOS.

(See Plates I, II.)

"Videntur vero ex una parte Civitatis insignia, Sphinx scilicet tricorpor; . . . Chiorum itaque insigne sed magis praecipuum Sphinx fuit. . . ."—*Leonis Allatii de Patria Homeri.*

Introductory.

I.

The coinage of Chios in ancient times deserves a more detailed study than has hitherto been given to it. The issues of the island-mint extended almost without a break over the whole period during which autonomous Greek coins were struck. And, through the accident of its so-called alliance with Rome after the Mithradatic wars, Chios shared the privilege, accorded to Athens, and to so many towns in Asia Minor, of striking bronze in her own name when all the rest of the civilized world was acknowledging the imperial supremacy on its coinage. In the case of Athens, however, the mint there seems to have been closed from the time of Sulla to that of Hadrian, while the various free cities of Asia Minor were of comparatively late foundation. From the point of view of duration, therefore, the Chian series is an important one. As the coinage of what was at one time the principal commercial state of eastern Hellas it is also worthy of study. There can be no doubt that the constancy

with which its main monetary type was preserved must have been due, as it was at Athens, to the popularity enjoyed abroad by the issues of its mint. The problems afforded by its electrum staters, and the well-known references by Thucydides and Xenophon to its fifth-century silver tetradrachms, provide further points of interest; while the bronze issues of imperial times bearing names of value yield a whole series of denominations that were probably of general use in Asia Minor and the islands of the coast during this period, but of which we have no other similar source of information.

On the other hand, the general effect of the Chian series is monotonous when compared with the almost infinite variety of types produced by states like Syracuse, and Tarentum, Elis, and Cyzicus. In fact, the comparative neglect of Chios at the hands of numismatists may well be due to the dullness and lack of artistic interest inherent in its coins. Then, again, there have been very few finds recorded in which the island has figured with any prominence. There is a great want of those fixed points to which one looks for help in endeavouring to join up the links of the long chain. Even the boasted autonomy of Chios during imperial times becomes a source of difficulty owing to the absence of the Emperors' names on the coins, and conjecture has to take the place of what might be certainty. The student, in short, has to rely mainly on his observation of small technical details, and on the evolution of style.

Since the great work of Mionnet, who, in the course of his comprehensive survey of Greek numismatics, recorded some hundred varieties of Chian coins, there

has only been one attempt, so far as I know, to make a complete list of the published types. I refer to a little-known treatise by one Joh. Kofod Whitte of Copenhagen.[1] To a compilation of all the historical *loci classici* relating to Chios the author has added an alphabetical catalogue of the various coins known to him through publications or personal research. His total number of types amounts to 248, which is a great many for the period at which he wrote. I draw attention to this little book because of its remarkable accuracy, and because of the interest that an early work of this character cannot fail to arouse among numismatists. As is to be expected there is not much attempt in it at a scientific arrangement of the coins enumerated, but they are divided into eleven classes which, in their main lines, come very near to the results yielded by our far more voluminous material and consequently wider perspective.

In the following pages I shall try to supplement the work of Kofod Whitte with as many of the facts that have come to light since his day as I have been able to collect. I cannot pretend to have ransacked every possible source of information; but I have studied most of the big collections, and have done my best not to neglect any minor opportunities that have offered themselves in the course of my quest.

There is no need to discuss the significance of the main type on Chian money. When Leo Allatius wrote his famous description of the bronze coin with the figure of Homer on the reverse, the Sphinx was almost as unintelligible to him as were its riddles to the

[1] *De Rebus Chiorum publicis ante Dominationem Romanorum.* Hauniae, MDCCCXXXVIII.

contemporaries of Oedipus. It has for long been accepted, however, as the emblem of Dionysus, and was probably distinct both from ἡ ῥαψῳδὸς κύων of Sophocles,[2] and from the Ra-Harmachis of the Egyptians. Nor would it be profitable to open once more the question as to the relative merits of the theories regarding the religious or commercial origin of coin-types. As a matter of fact the Chian Sphinx seems to offer a compromise between the two. In its earlier days, at any rate, the city's badge partakes of a religious nature. Whether we look upon the Sphinx, especially in its hieratic attitude with one forepaw raised, as an attribute of Dionysus enjoining silence in respect of his mysteries, or as a guardian of the temple's treasures, there is nothing of the commercial element about it. But later on when first the amphora, and then the bunch of grapes were added to the type, the business interests of an essentially mercantile community were clearly being brought into notice.

This slow merging of a mystical aspect into a practical one is also suggested by the curious ornament which is to be observed on the head of the primitive Sphinx, but which is discarded with one exception[3] soon after the middle of the sixth century. This ornament, like the Sphinx itself, undoubtedly hails from the East, though both had apparently long been domiciled in the Aegean area.[4] Like so many

[2] *Oed. Rex*, 391.

[3] Electrum Stater struck at time of Ionian Revolt when religious feelings must have been in the ascendant. P. Gardner, in *J. H. S.*, 1911, p. 151, and Pl. vii. 1, though the particular coin selected for illustration is probably a forgery.

[4] See Hogarth, *Ionia and the East*, Lecture iii.

other elements in Hellenic art and culture we are driven to connect them with the recently discovered pre-Hellenic civilization.[5] We see the spiral ornament on the heads both of Sphinxes and Griffins, on the ivories from Spata, and from a tomb at Knossos, on a terra-cotta plaque from Praesos, and on some of the gold plaques from the foundation deposit of the great temple at Ephesus. It has been called by various names by those who have tried to account for its occurrence on coins bearing a Sphinx. To one it has suggested a vine-tendril,[6] to others a feather or "plumes",[7] and to another again "the lock of immortality".[8] This last theory is by far the most convincing. In discussing the Persephone relief in the National Museum at Athens, M. Svoronos draws attention to the separate lock of long hair on the head of Triptolemus, and traces its origin back to Egypt. It was an emblem of immortality there, and, being specially characteristic of chthonic deities, it was used also in representations of their attributes, Sirens, Sphinxes, and Griffins. The lotus-flower had a similar significance, and is sometimes seen grasped in the monster's upraised paws [Pl. I. 8]. M. Svoronos thinks that the spiral ornament in question was a conventionalized lock of hair assuming a tendril-like form under the influence of the lotus-flower so often associated with it.

Though we may be inclined to praise the Chians for

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[5] See Sir A. J. Evans, *J. H. S.*, 1912, p. 277.

[6] Babelon, *Traité*, part i, pp. 190–1.

[7] Dressel, *Zeitschrift für Num.*, 1900, vol. xxii, pp. 238–41. Canon Greenwell, *Num. Chron.*, 1890, pp. 4–5, and Sir H. Weber, *Num. Chron.*, 1899, pp. 276–8.

[8] Svoronos, *J. Int. d'Arch. Num.*, 1913, p. 228, and note referring reader to *Das Athener National-Museum*, by J. Svoronos, pp. 113–14.

the constancy which they showed to their national emblem on their coins, and for the sobriety with which it was invariably represented, we must not forget that the Sphinx was by no means the peculiar possession of the island-state. It has even been suggested [9] that the uplifted paw with which the Sphinx is shown on certain archaic silver coins ought to make one pause before attributing such coins unhesitatingly to Chios. In all the late bronze issues of the island, however, this position is the rule. Some of the early electrum [10] too, about which no doubt has ever been raised, also shows the Sphinx with one uplifted forepaw [**Pl. I. 8** and **Pl. II. 10**], as well as the late electrum stater [**Pl. III. 9**]. There seems no reason therefore to hesitate about the attribution of these early silver pieces, especially as their weight and fabric agree with those recognized as being peculiar to Chios. On the analogy of the Griffins of Teos alone we may assume that it was customary to represent these and similar monsters with one forepaw raised, and it is most likely that there were familiar statues at Chios of Sphinxes in this attitude, though no mention of such has come down to us. Additional support is lent to this by the fact mentioned above that the raised forepaw is a constant feature of the Sphinx on the Imperial bronze coinage, since we know that die-engravers at that time drew their inspiration largely from the statuary around them.

[9] Dr. Dressel, *op. cit.*

[10] In *Num. Chron.*, 1911, "Some unpublished Greek Coins," p. 89, 1 quoted an electrum twelfth from the Cabinet des Médailles, Paris, as affording further confirmation of this. This coin can no longer be taken as trustworthy evidence. See below, note 28, for further remarks.

Nevertheless, it is well to remind ourselves, when studying anepigraphic coins, that many peoples besides the Chians used the Sphinx as a badge. Among others Gergis in the Troad, Caunus in Caria, Perga in Pamphylia, Aphrodisias in Cilicia, Idalium in Cyprus, and last, though not least, Asoros or Gasoros in Macedonia,[11] all struck coins bearing a Sphinx as one of their types, if not the main one. And this use of the Sphinx, it must be remembered, was quite independent on the part of these smaller states. There was no alliance or obligation between them and Chios, still less any degree of relationship like that which induced the Teian colony of Abdera to use a Griffin as its *ἐπίσημον*.

It is not difficult as a rule to identify coins exhibiting a Sphinx alone, although a few aliens have crept into the Chian series in most of the national cabinets,[12] since, in addition to peculiarities of style, both the flan and the incuse square had a character of their own at Chios. But when one meets with coins bearing double types, it is extremely difficult, if not impossible, to decide whether they should be attributed to one or other of these rival claimants, or looked upon as alliance pieces between Chios and one of her neighbours on the mainland.[13]

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[11] With regard to this hitherto unknown city, see Svoronos, *Jour. Int. d'Arch. Num.*, 1913, p. 224.

[12] An instance from the B. M. Coll. is No. 39, *Cat. Ionia*, under Chios, an ancient forgery. On this piece the Sphinx is depicted to r., an arrangement never found at Chios on silver till the first century B.C., when it appears on one or two of the Attic drachms then struck. The whole style of the coin, besides, is totally unlike any Chian issue.

[13] See *Num. Chron.*, 1913, pp. 427–8.

Placed as she was athwart two of the principal highways of commerce in ancient times, it is not surprising that Chios became one of the earliest users of coined money among the Greek states. A large portion of the trade from the Far East that was borne along the Royal road[14] between Ephesus and Susa viâ Sardis, must have passed by Chios on its way to Hellas and the West. With it in due course came the new invention of coinage, Miletus and other cities of the coast following the lead of Lydia, and Samos, Chios, and the rest carrying on the torch after a short interval. And less interesting from a purely numismatic point of view, though equally important as a source of wealth, is the fact that Chios lay in the direct path of that other great trade-route which connected Egypt and Syria with the ports and wheat-fields of the Euxine.

The people of Chios had always been traders.[15] The produce of the island was not sufficient to support them, as is shown by their constant agitation for the *peraea* of Atarneus. But, in order to deal with the problem of population and food supply, they seem at an early age to have had recourse to commerce rather than to the primitive expedient of colonization which prevailed in the eighth and seventh centuries. They had trading stations no doubt in plenty, but they apparently never drove out whole swarms from their midst with the object of founding cities at a distance.[16]

[14] Herodotus v. 52-4.

[15] Aristotle, *Politics*, iv. 4.

[16] Fustel de Coulanges, *Mémoire sur l'Ile de Chio*, pp. 265-6, a work to which I am much indebted. There are records of a town called Chios in Egypt, which we may suppose to have been more trading station than colony, since it was most unusual among Greek states for the metropolis to give its own name to the latter.

Like those of the Aeginetans[17] in the west of the Aegean, the commercial operations of the Chians radiated from Ionia in all directions, and even imposed their monetary standard on some of their customers. The importance of the Chian standard, which has lately been so ably demonstrated,[18] made it the principal rival of the Aeginetic and the Euboic-Attic systems in the East up to the time of Alexander the Great. A little speculation as to its origin would perhaps not be misplaced before entering upon a detailed description of the coins themselves.

All early traditions concur in describing the prehistoric inhabitants of Chios as the Carians, Leleges, or Pelasgians, who occupied all the islands and coasts of Asia Minor prior to the Ionian immigration.[19] Now that all myths are treated with respect until they are definitely proved to be worthless, there is satisfaction in finding confirmation of the above in some of the island place-names. The word Chios itself is probably Carian, there was a town of the name on the Triopian promontory,[20] and it certainly has no meaning in Greek. Of the same origin are also the village-names Babrantion and Bolissos (a name that still survives unchanged, at least in its written form), and the harbour called Kaukasa. Kardamyle, another village, and still surviving like Bolissos, is a link with the Leleges, and their similarly named town in Messenia. Finally, the mount Pelinaion recalls the Pelasgo-

[17] See Head, *B. M. Cat.*, *Attica*, Introduction, p. lxv.

[18] See P. Gardner, "Coinage of the Athenian Empire," *J. H. S.*, 1913, p. 147, and ff.

[19] See Strabo, xiii. 621; xiv. 632; Pausanias, vii. 2 and 4; Herodotus, i. 171.

[20] Stephanus Byzantius, *sub voce*.

Thessalian town Pelinna.[21] But the most important tradition that has come down to us is that which connects Chios with the Minoan thalassocracy.[22] Oenopion, grandson or nephew of Minos, is supposed to have settled in the island, and reigned there as king, introducing the cultivation of the vine, and destroying monsters in the approved heroic fashion. There must have been considerable affinity between the Minoans and the local peoples, and the rule of Oenopion and his sons seems to have been a success. Pausanias relates[23] that the tomb of Oenopion was venerated at Chios even in his day, and was one of the principal objects of interest there. Now, all this may be taken to show that Minoan influence was strong in the island during the second millennium B. C. We may assume that the Minoan civilization prevailed there. What then more likely than that weights and measures in use in Minoan Crete should have been introduced into prehistoric Chios with the vine and other advantages?

It must surely be generally admitted by this time that the so-called Phoenician weight standard was used in Crete at a period long anterior to the true Phoenicians and their wanderings.[24] The characteristic Chian standard has always been looked upon as a derivative of the Phoenician, so, now that we venture

[21] See Fick, *Vorgriechische Ortsnamen*, pp. 60-2.

[22] Pausanias, vii. 4 and 5.

[23] Pausanias, vii. 5. It is surprising that Pausanias does not refer to the other myth that makes Oenopion the son of Dionysus. The connexion between the two, especially at Chios, is so obvious that the myth cannot fail to have existed there from the earliest times.

[24] See Sir A. J. Evans, "Minoan Weights and Currency," in *Corolla Numismatica*, particularly the "silver dump" figured on p 363.

to substitute Minoan for Phoenician, it is, to say the least, encouraging to find an independent tradition supporting the establishment of Minoan culture in Chios. Positive evidence as to this is lacking up to the present. There are no remains such as Melos, Thera, and even Delos have provided in such abundance. But there are "pelasgic walls" near the village of Myrmiki (*Μυρμήκι*) in the S.E. of the island that invite the spade of the excavator.

In the meantime, since the continuity of a weight-standard over such a long period of time cannot be proved, it seems better to use the term Graeco-Asiatic to describe the stater of the average weight of 225·6 grains (14·616 grammes).[25]

II.

On the analogy of the evidence left by all the surrounding states, the earliest coins of Chios were presumably of electrum dating from the latter part of the seventh century B.C. But a difficulty confronts us here at the outset. None of the extant electrum pieces are as rude in style as some of the silver didrachms that formed part of the Sakha hoard, and of another similar find in Lower Egypt[26] [**Pl. I. 3**], not to mention the doubtful pieces belonging to the Aeginetic standard[27] [**Pl. I. 1 and 2**]. We have, besides,

[25] In doing this I am following the late Dr. Head in his *Coins of Ephesus*, and Prof. P. Gardner in his *Samos and Samian Coins*.

[26] *Num. Chron.*, 1890, p. 4, Pl. i. 16; *Num. Chron.*, 1899, pp. 276–7, Pl. xvi. 2; and *Zeitschrift für Num.*, 1900, pp. 238–41, No. 30, Pl. viii. 6.

[27] *Num. Chron.*, 1890, p. 18, Pl. ii. 15. With regard to the general question of early Ionian silver see *B. M. Cat.*, *Ionia*, Introd., pp. xxxii–iv.

no electrum coin with a Sphinx of so primitive a type as that conjecturally attributed to Samos (*B. M. Cat.*, *Ionia*, Pl. iii. 20-2).

We are driven to conclude, therefore, either that the first Chian issues in electrum have not come down to us, or that the island struck silver a little before it began to use electrum. We must also allow, if the above-mentioned attribution to Samos be correct, that coinage did not begin in Chios quite as early as it did in Samos.

With that caution, then, we can proceed to examine the surviving coins. It is opportune to remark here that the first thing that strikes one on inquiring closely into any series of ancient coins is the immense amount of material to be dealt with, but after a very little shuffling and sifting it soon becomes evident that only comparatively few of the original issues are available for our study.

To illustrate this let us confine ourselves for the moment to the electrum coins. In addition to the fact already mentioned that no really primitive specimens of coins in this metal exist, it is worthy of note that we have no divisional pieces that can with certainty be attributed to Chios.[28] Considering the numbers

[28] M. Babelon, in Part i, p. 191, No. 335 of his *Traité*, and Pl. viii. 7, includes a twelfth-stater from the Cabinet de France in his Chian series. This coin, however, ought to be given to Teos, or perhaps more correctly to Phocaea. It most certainly does not belong to Chios, as the animal depicted on it is a Griffin. This was first pointed out to me by Miss A. Baldwin, and I have since been able to verify her opinion by personal observation. There is a small electrum piece with a Sphinx of archaic style r. in the Cabinet de France, but it is too heavy for Chios besides being quite unlike any of her issues in style. It weighs 40 grains (2·59 grammes); clearly a Phocaic sixth.

and varieties of these little coins that were struck by the states using them, it is curious that none should have survived if they were ever made. We know of at least six different issues of electrum staters presumably belonging to Chios, but none of the thirds or sixths which the practice of other Asiatic mints would have led us to expect. We are almost justified in classing them, with the unknown staters of Phocaea, among those things that we may expect to find some day. On the other hand, if, as already suggested, there were no electrum current in Chios before the introduction of silver, the lack of small electrum pieces might straightway be accounted for, since fractions of the stater would have been more conveniently made in silver.

The monetary standards employed at Chios must now be briefly considered, although the main facts concerning them are perfectly well known.

In the case of the early electrum coinage the standard followed was the Graeco-Asiatic, or an adaptation of it, in which the stater weighed about 219·5 grains (14·18–14·24 grammes) at Miletus. At Chios the weight does not seem to have exceeded 218 grains (14·14 grammes).

In the case of silver the statement cannot be made quite so simply. As will appear below, the earliest issues seem to have followed various systems, as if the users were feeling their way until the Chian standard proper was finally established. The same phenomenon may be observed in the early silver coinage of Erythrae, Miletus, and Samos. It is not intended to number among these different systems the peculiar Aeginetic staters [Pl. I. 1 and 2] with a crouching Sphinx, as they

fall into quite a different category, and cannot be claimed as genuine products of the Chian mint. But, independently of them, we seem to find three different standards in the two small groups of coins that stand at the head of the true Chian issues. Though it may be urged that two or three isolated pieces make a slender foundation on which to build up a somewhat elaborate theory, the extreme rarity of the coins must be their excuse.

They will be found described under Period I, but at present we are only concerned with their weights, which are as follows:

105·10 grains (6·81 grammes), **Pl. I. 5**; 113·6 grains (7·36 grammes), **Pl. I. 5**; 120·0 grains (7·76 grammes), **Pl. I. 3**; and 129·9 grains (8·42 grammes), **Pl. I. 3**.

Now, though these coins are divisible, by their style, into two separate groups, there cannot have been any material lapse of time between their respective dates of issue. On the other hand, the variations in their weights are too great to be accidental, and the weights represent, besides, three well-known monetary systems. The first mentioned belongs clearly to the modified Graeco-Asiatic or Phoenician system, the second and third to the Chian, and the fourth to the Euboic.

The Euboic standard is known to have been used in coining early Asiatic silver (*B. M. Cat.*, *Ionia*, Introd. p. xxxvi, and Pl. xxxiv. 3, 4, and 6). Though the pieces referred to are of doubtful attribution they serve to exemplify the close connexion that had always existed between the opposite shores of the Aegean, and may even be taken as proof of the Asiatic origin of the Euboic monetary system. It may safely be assumed that Chios had a share in whatever commercial trans-

actions took place over the area in question, and coins struck by Chios on the standard prevailing in Euboea and elsewhere would, no doubt, have facilitated her operations.

The modified Graeco-Asiatic system was indigenous to the whole district of Ionia, and one would naturally expect to find it current in one of the principal Ionian states. In fact, these silver didrachms, weighing about 108 grains (7·00 grammes), or possibly a little more, may have been issued in connexion with some of the early electrum coins for the purposes of eastern trade. As will appear below, they are probably contemporary with what I take to be the earliest extant electrum staters.

Twenty of such didrachms would have been equivalent in value to one electrum stater of 217 grains (14·14 grammes) max., at the conventional ratio of 10:1 then ruling. Considering that the metal used for these electrum pieces was a natural alloy, it seems a work of supererogation to try to arrive at the true proportionate values of silver and electrum coins by estimating the actual amount of gold and silver contained in the latter. The ratio must have been a conventional one, and, as M. Th. Reinach has pointed out,[29] it was probably maintained at 10:1 until the end of the fifth century B.C. It fell to 9:1 in sympathy with the reduction that subsequently took place in the value of gold, and later still, towards 330 B.C., to $7\frac{1}{2}$:1, after which electrum ceased to be used for coinage. These equations can all be proved from actual facts, as the learned author proves them at length in the

[29] "De la valeur proportionnelle de l'or et de l'argent dans l'antiquité grecque," *Rev. Num.*, 1893 and 1902.

treatise quoted, and there is no need to call in the question of alloy in any of the cases he gives. The fourth-century electrum issues of Syracuse and Carthage were of quite a different order, for there the gold used was deliberately and even fraudulently alloyed.

The Chian standard, which regulated the bulk of the island's silver issues for more than 250 years, seems, on the evidence of these early coins, to have been employed there at least as soon as the Euboic and before the Graeco-Asiatic.

The coin illustrated, **Pl. I. 3**, is the earliest known representative of the system, though it is contemporary with the similar coin struck on the Euboic standard as detailed below. They are undoubtedly the earliest coins of Chios that we possess; and, on grounds of style, may safely be assigned, like the Aeginetic staters, to the end of the seventh century B. C.

The Aeginetic system had already a fairly wide range at this time. As is shown by the staters with the crouching Sphinx, and others of various types that have been found with them, some sort of monetary union existed between Aegina, several of the Cyclades, and certain coast towns and islands of Asia Minor.[30] There must have been a tendency among other small neighbouring states either to use the same standard or to adapt their own to it as the system best suited to the interests of their trade. At Teos the Aeginetic standard was taken over bodily, but Chios seems to have had sufficient independence to frame a standard of her own.

Though it must remain nothing but a theory, by far

[30] *Num. Chron.*, 1884, p. 269, and 1890, p. 13.

the most likely way to account for the rise of the characteristic Chian standard is to regard it as an adjustment between the Graeco-Asiatic and the Aeginetic systems.[31] This was effected by raising the weight of the Graeco-Asiatic didrachm from 108 grains (7·00 grammes) to 123 grains (7·97 grammes) max., which is almost exactly $\frac{5}{8}$ of the Aeginetic stater weighing 196 grains (12·60 grammes). In other words, eight of the new didrachms would exchange against five of the latter without the necessity of any calculation or weighing.

Period I. 625–575 B.C. (?).

It will of course be understood that the limits assigned to this period are only approximate. It is impossible to say exactly when coinage began in Chios, nor is there any historical event, between the dates suggested, of a nature likely to have left its mark on types or standard.

It was in the latter days of the Ionian League, and an oligarchical government held sway in Chios. There were occasional wars between the island and Erythrae towards the end of the seventh century, and before the turn of the sixth Chios sent troops to the assistance of Miletus when the latter was fighting against Alyattes of Lydia. In effect the relations between Chios and Miletus seem to have been intimate at this time. The Milesians, aided by contingents from the most enterprising states of the coast and islands, had founded Naukratis in Lower Egypt early in the seventh century. In the great temple there, called the Hellenion, the names of all the peoples who contributed to its

[31] G. F. Hill, *Handbook of Greek and Roman Coins*, p. 39.

erection were recorded, and that of the Chians stood at the head of the list. Constant communication must have been maintained between Egypt and Chios, for commercial activities were growing fast. It is not surprising, then, that, as stated above, some of the island's earliest coins should have been found in Lower Egypt. In fact, up to the present, the site of Naukratis has, so far as we know, been the only source of supply for the early silver didrachms.

As regards artistic development it is well known how advanced Chios had already become. The seventh century saw the rise there of a whole school of early sculpture. The names of Malas, Mikkiades, and Archermus, members of a single family of sculptors who followed each other in direct line, have been preserved for us by Pliny.[32] Glaucus, the metal-worker, who was patronized by Alyattes, was also a native of the island. It is tempting to think that some of these men, whom we associate with the dawn of art in the Greek world, may have influenced the die-cutters of the first Chian coins.

The coins which I would assign to this period are the following, and I should like to remark here once for all that the lists of the various types given below do not aim at being exhaustive.

When a type is rare I have recorded particulars of every specimen known to me either through publications or through having been able to examine the collections containing them.

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[32] *Hist. Nat.*, xxxvi. 11. Commenting on Jex-Blake's translation, Dr. H. L. Urlichs remarks that Malas was not the great-grandfather of the sons of Archermus, mentioned later, but the point is only of secondary importance here.

In the case of common varieties I have been content to cite three specimens only, so as to give the extreme variations of weight, &c., with the addition of a qualifying note such as *not rare*, *common*, and so on.

1. *Obv.*—Sphinx of rude style crouching l. on plain exergual line; wing curled; and long hair gathered into rough knot on nape of neck. Before it indistinguishable object or objects.

Rev.—Incuse square roughly divided into four unequal parts, and small countermark similarly but more evenly divided. Both punch-struck.

Æ. $\frac{20{\cdot}50}{17{\cdot}50}$ mm. 188 grains (12·18 grammes). Aeginetic stater. Coll. Sir H. Weber.

$\frac{20{\cdot}50}{18{\cdot}00}$ mm. 187 grains (12·12 grammes). Aeginetic stater. Sotheby's Sale Cat. Warren Coll., 1905, No. 31.

$\frac{20{\cdot}00}{18{\cdot}00}$ mm. 184·75 grains (11·97 grammes). Aeginetic stater. Coll. B. Yakountchikoff ex Coll. Prince Chakhouskoy. Egger's Sale Cat., 1908, No. 547. [Pl. I. 1.]

$\frac{21{\cdot}00}{18{\cdot}00}$ mm. 187 grains (12·12 grammes). Aeginetic stater. Sotheby's Cat. Sherman Benson Coll., 1909, No. 695.

$\frac{21{\cdot}00}{19{\cdot}50}$ mm. 192 grains (12·44 grammes). Cab. de France, ex Taranto find. [Pl. I. 2.]

$\frac{21{\cdot}50}{19{\cdot}00}$ mm. 190·75 grains (12·36 grammes). Mus. of Fine Arts, Boston, Mass., U.S.A., ex C. P. Perkins's Coll., No. 492 of Cat.

This very rare and primitive coin was first published by Canon Greenwell in *Num. Chron.*, 1890, p. 18, Pl. ii. 15, while describing a hoard that contained three specimens of the type, one of which, now in Sir H. Weber's collection, is given above.

As already suggested, this coin cannot be unhesitatingly attributed to Chios, although it has been associated with the island for so long by numismatists that it would be presumptuous to omit it here. It is so totally different in style, however, from the usual products of the Chian mint that one is almost driven to prefer some other source of origin. On the other hand it would be difficult to conceive of a more fitting prototype for the well-known fifth-century didrachm of Chios than the coin next to be described, **Pl. I. 3.** Practically every step in the development from one to the other can be traced. But the Aeginetic staters are altogether foreign to the series. As Canon Greenwell pointed out, the appearance of the Sphinx upon them partakes more of animal than of human characteristics. The work is different in many ways from that of No. 2, although the two coins are in all probability roughly contemporary, the prominence of the chin in No. 1 being especially remarkable. The object or objects in front of the Sphinx have been called by various names, but on no specimen known to me are they sufficiently clear to warrant a guess as to their nature. The association with Chios of course suggests an amphora, but I can see no justification for it, still less for a vine branch. There are at least two distinct dies to be recognized, both obverse and reverse, but the differences between them are of no importance. The countermarking of the coins seems to have partially obliterated the symbol in most specimens. I illustrate two in order to show that the smaller of the two incuse squares is really a countermark, and not part of the main punch mark as has been suggested. A reference to the plate will show

that these coins are from the same reverse die, yet the small incuse occupies a relatively different position on each.

It is the same countermark as occurs on the coin attributed to Cos in *B.M. Cat., Caria,* Pl. xxx. 1, to Cnidus, do. do., Pl. xiii. 7, and to Delos, *Num. Chron.*, 1890, Pl. ii. 11; also possibly on the gold stater of Phocaea, *Num. Chron.*, 1875, Pl. x. 6.

The globular, or bean-shaped, flan, the punch-striking of the reverse, and the small countermark of this coin are all Ionic in character, and quite distinct from the typical Aeginetic incuse and anvil method of striking which mark the western group of coins so closely connected with it.[33]

It seems evident, therefore, that we have here an issue of some Ionian state in temporary league with Aegina and other cities, though there is nothing to show to what particular state it should be attributed.

We come now to what may be considered to be the first genuine Chian issues, beginning with the earlier of the two groups of coins showing varying standards.

2. *Obv.* — Sphinx of rude style seated l. on roughly dotted exergual line; forelegs united and straddled; wing curled; hair long with a separate lock descending from crown of head and curling upwards at tip. In field l. a rosette.

Rev.—Roughly quartered incuse square; punch-struck.

Æ. 16·25 mm. 120 grains (7·76 grammes). Chian didrachm. Berlin Cab. ex Sakha hoard. [Pl. I. 3.]

16·75 mm. 129·9 grains (8·424 grammes). Euboic didrachm. Brit. Mus.

[33] See illustrations accompanying the late Mr. W. Wroth's description of the famous Santorin hoard, *Num. Chron.*, 1884, Pl. xii, and Canon Greenwell's account of a similar find, *Num. Chron.*, 1890, Pl. ii. 9–16.

These two coins, which, to the best of my belief, are the only known specimens of their type, were probably struck from the same obverse die, and certainly from the same reverse one, the British Museum specimen being the earlier.

The Berlin specimen was published by Dr. Dressel in the *Zeitschrift für Numismatik*, 1900, pp. 238–41, No. 30, and in the *Numismatic Chronicle* for 1911, pp. 85–93, I drew attention to the one in the British Museum.[34]

Several points in connexion with these interesting coins have already been touched upon above. Attention may be drawn in passing to their very early style betrayed by the grotesque profile and the large head. They can safely be assigned to the end of the seventh century B.C., and are at least as old as the Aeginetic staters.

It is interesting to note that the quartered incuse square already appears at this early date, and must necessarily be placed before the plain incuse of coins such as Nos. 4 and 5, although, in the absence of other evidence, the latter form is generally regarded as the more primitive of the two.

With regard to the rosette in the field it is conceivable that it may commemorate some fleeting alliance with Erythrae. But I do not feel inclined to support the idea, the two states having been almost constantly at variance. Besides, a more plausible explanation of the symbol is to be found in the solar

[34] In the course of my remarks on that occasion I was wrong to place these coins in the same class as the didrachm published by Canon Greenwell in *Num. Chron.*, 1890, p. 4, since the latter belongs to the group next to be described.

emblem on certain coins of Paeonia and Macedonia.[35] At first sight this may not appear quite obvious to those who have been accustomed to regard the Sphinx as a peculiarly Dionysiac attribute.

M. Svoronos has shown us, however, in his most interesting paper, that both Sphinxes and Griffins figured in the imagery of the sun-worship that prevailed throughout nearly the whole district between the river Axius and the Rhodope mountains. This cult had its centre on the summit of Mount Pangaeum, and it can be traced from the Derronians in the west to the Sagraeans in the east, from the Laeaeans in the north to the island of Peparethus in the south through the prevalence on their coins of the solar emblem of a rosette of pellets in various forms. For details I must refer the reader to M. Svoronos's learned article.

On the other hand, to the immediate north of Mount Pangaeum extended the land of the Edones, and to the east of it that of the Dionysians, where the worship of Dionysus had flourished from time immemorial. In fact the two cults seem to have overlapped both in their symbolism and in their geographical distribution. The votaries of Dionysus adopted the *κύκλος Ἡλίου*, and those of Zeus the Sphinx and the Griffin.

Among the Edones, who, as we have seen, were worshippers of Dionysus, was a city called Asoros or Gasoros, to which reference has been made above. This city struck coins over a considerable time, for specimens are known representing the archaic, the transitional, and the fine periods of art, with a Sphinx to r. On a transitional piece, now in the Vienna cabinet, the

[35] J. N. Svoronos in *Journal Int. d'Arch. Num.*, 1913, pp. 193–280.

solar emblem, of a form very similar to that on this archaic coin of Chios, is to be seen in front of the Sphinx.

It seems highly probable that the Pangaean country-side may be the original home of the Chian Sphinx, and fresh force is thereby added to the supposition that the type under consideration may represent the first monetary issue made by Chios. The Sphinx in combination with the solar emblem was at home on the Thracian border of Macedonia, and was no doubt taken over with the new religion on its introduction into the Ionian island. The symbol then ceased to have any meaning in its new surroundings, and was forthwith discarded. In any case it never appears again on the coinage.

The second group of coins exhibiting varying standards, which is the next to be examined, includes the earliest type of electrum stater that has come down to us. Judging by style alone, I venture to suggest that the staters described below were struck during the first quarter of the sixth century. This theory is supported by their similarity to the silver didrachms that accompany them here. These latter, as already observed, come sufficiently near to No. 2 in general appearance to show that no great interval of time can have separated them.

Taking the electrum staters first, we have:

3. *Obv.* — Sphinx of rude archaic style seated r. on exergual line, consisting of two parallel lines with dots between. She has wing slightly curled; hair lying in a thick mass on nape of neck, with a separate lock rising from crown of head and ending in a spiral curl; and round ear-ring. Further foreleg shows behind nearer.

Rev.—Deep incuse square divided into four parts, and punch-struck.

El. $\frac{21{\cdot}00}{19{\cdot}00}$ mm. 218 grains (14·14 grammes). Milesian stater. Cabinet de France. [Pl. I. 4.]

$\frac{21{\cdot}50}{18{\cdot}25}$ mm. 216·2 grains (14·01 grammes). Milesian stater. Cabinet de France.

These two coins are Nos. 331-2 of M. Babelon's *Traité*, vol. ii. The former was first published by Ch. Lenormant in *Rev. Num.*, 1856, p. 12, Pl. ii. 1, where he alludes to it as of *très ancien style*. The second is a variety of it, and is the only other specimen of the type known to me. They differ mainly in the form of the exergual line, which, in the case of the latter, seems to consist of a row of dots only, but both are struck from the same reverse die.

It will be noticed that the style of these coins is much better than that of No. 2, and the whole aspect of the Sphinx is more like what it assumed in later times, but the sloping forehead and coarse features typical of primitive work are still there.

4. *Obv.*—Sphinx of rude archaic style seated l. on plain exergual line; wing curled; hair in uniform mass like an Egyptian wig, with long separate lock rising from crown of head and projecting backwards; forelegs separate, but not drawn in perspective.

Rev.—Plain incuse square, punch-struck.

Æ. 15·00 mm. 116·8 grains (7·57 grammes). Chian didrachm. Berlin Cab. ex C. R. Fox Coll., Coll., 1873. [Pl. I. 5.]

16·50 mm. 105·1 grains (6·81 grammes). Graeco-Asiatic didrachm. Coll. Sir H. Weber, from find in the Delta, 1890.

15·00 mm. 113·6 grains (7·36 grammes). Chian didrachm. Coll. Sir H. Weber, from Sakha hoard, 1899.

This type, which is clearly a direct descendant of No. 2, was first published by Canon Greenwell in *Num. Chron.*, 1890, p. 4.

The Berlin specimen and Sir H. Weber's Chian didrachm are from the same obverse die, while Sir H. Weber's Graeco-Asiatic didrachm is from the same reverse die as the Berlin coin.

These didrachms must be considered earlier on the whole than the electrum stater No. 3, though the differences to be observed may be partly due to careless execution. It is worthy of note that the dies for electrum coins seem, as a rule, to have been more elaborately prepared than those for silver ones. Another small point, illustrating this time the conscientiousness of archaic art, is that, throughout the sixth century, the forelegs of the Sphinx are almost invariably drawn so that both should be seen. And it may be broadly stated that, after the period when one foreleg is represented raised, the earlier coins have the legs further apart than those which succeed them.

The paucity of dies, to which attention has been drawn, in all the coins hitherto described, shows that they cannot have been struck in large quantities. This is only what one would expect from such early issues, and helps to confirm their attribution to the dates suggested.

Period II. 575 (?)–545 B.C.

The early portion of this period is more remarkable in the history of Chios for the aesthetic and commercial progress made by her people than for any important political event. In 550 B.C., however, Croesus overthrew the Ionian League, though he refrained from subju-

gating the two island states of Chios and Samos. The oligarchic or aristocratic form of government continued at Chios down to the time of the final extinction of the League by Harpagus in 545 B.C.

Since all autonomous coining of electrum must have ceased with the imposition of Persian rule under Cyrus, as Prof. P. Gardner has conclusively shown,[36] the task of fixing the date of the remaining Chian issues in this metal is considerably simplified. Three at least of the known types still unrecorded here must, in consequence of the above, fall automatically into the present period. They are none of them so old in style as the type last quoted, No. 3, nor are they yet suitable for inclusion among the coins of the Ionian Revolt, about which there will be more to say later on.

As regards their individual arrangement it is of course impossible to be positive, and the order in which they are placed below is only intended to be conjectural. Still, by comparing these three widely divergent types with the more or less contemporary silver didrachms, which afford a far less broken scheme of development, I hope to be able to show that the two classes mutually support each other without necessarily having been issued together. It is possible of course that some of the didrachms described under Period III may belong here, but in the present state of our knowledge anything more definite than what I am already proposing would be the merest guesswork.

There is certainly no lack of material from this time

[36] "The Coinage of the Ionian Revolt," *J. H. S.*, 1911, p. 156.

onward, and it is clear from the variety of types how intense was the artistic life of the time. The sculptor Archermus, the third of his line, was flourishing, of whom it has been said that he was the first to give wings to Nike. One is irresistibly reminded of this phrase by the beautifully finished stater [Pl. I. 8], and what I like to look upon as its contemporary didrachm [Pl. I. 14], in which the Sphinx's two wings are shown in a fine perspective. This arrangement was never attempted again until the beginning of the Roman period.

The following are the electrum coins referred to above:

5. *Obv.*—Sphinx of archaic style seated r. without exergual line; wing curled; hair in dense mass like an Egyptian wig; only one foreleg showing.

Rev.—Plain incuse square; punch-struck.

El. $\frac{18{\cdot}75}{16{\cdot}50}$ mm. 216·97 grains (14·06 grammes). Milesian stater. Br. Mus. ex Bank Coll. [Pl. I. 6.]

$\frac{19{\cdot}50}{18{\cdot}00}$ mm. 216 grains (14·00 grammes). Milesian stater. Berlin Cabinet.

6. *Obv.*—Sphinx of archaic style seated r. without exergual line; wing slightly curled; hair in long straight ringlets; only one foreleg showing.

Rev.—Plain incuse square: punch-struck. (The absence of quartering cross in this type may possibly be due to wear.)

El. 19·00 mm. 217·75 grains (14·11 grammes). Milesian stater. Coll. B. Yakountchikoff ex Rothschild Coll. No. 370, Cat. 1900.

$\frac{20{\cdot}75}{18{\cdot}00}$ mm. 216·35 grains (14·02 grammes). Milesian stater. Coll. R. Jameson, Cat. No. 1519, from Vourla find, 1911. [Pl. I. 7.]

7. *Obv.*—Sphinx of refined archaic style, wearing round earring, and seated l. without exergual line; both wings showing, curled at tips; hair long; further forepaw raised and holding lotus flower.

Rev.—Incuse square somewhat roughly divided into four parts; punch-struck.

El. $\frac{19{\cdot}00}{17{\cdot}00}$ mm. 216·5 grains (14·03 grammes). Milesian stater. Coll. B. Yakountchikoff ex Montagu Coll., No. 589, Sotheby's Cat. 1896.

$\frac{20{\cdot}00}{18{\cdot}50}$ mm. 217·9 grains (14·12 grammes). Milesian stater. Coll. R. Jameson, Cat. No. 1520, ex Philipsen Coll., No. 2241. Hirsch's Cat., 1909. [**Pl. I. 8.**]

$\frac{21{\cdot}00}{17{\cdot}75}$ mm. 217·13 grains (14·07 grammes). Milesian stater. Cabinet de France; No. 335 of Babelon's *Traité*, vol. ii.

20·00 mm. 218·2 grains (14·14 grammes). Milesian stater. No. 1087, Cat. Egger, xlvi. 1914.

The only point that these three staters have in common is the absence both of the exergual line and of the separate lock of hair.

No. 5 is well known to all students of the National Collection, and was published in the catalogue for Ionia, p. 7, and Pl. i. 19. It was chosen by Prof. P. Gardner to illustrate his paper on the Gold Coinage of Asia in the Proceedings of the British Academy, 1908, when he first propounded his theory about the coinage of the Ionian Revolt, but rejected later (*J. H. S.*, 1911, p. 154, note 11) as being of too early style.

No. 6 was published by M. R. Jameson in his description of the Vourla find (*Rev. Num.*, 1911, pp. 60–8), when, without knowing of Prof. Gardner's

paper, he came to the same conclusion about the probable issue of a federal coinage at the time of the Ionian Revolt. The author there recognized that this particular coin is older than the majority of those composing the hoard to which the date of 500 B.C. is roughly assigned.

This coin is of later style than No. 5, though it has a similar plain incuse. It is possible that the absence of the crossed lines in this case may be due to wear, since traces of what might have been quarterings are to be detected in the square, whereas the reverse of No. 5 shows no signs of them at all.

Both the coins here described are from the same dies.

No. 7. So far as I am aware this beautiful stater has never been the subject of any special reference. It is an example of all that is finest in archaic art, and a proof of the high level reached by craftsmen in Chios at this period. Unfortunately none of the specimens that I have come across is in really good condition, M. R. Jameson's coin being quite the finest of the four. This prevents any comparison of dies in the case of the obverses, but for the reverses two are recognizable, one between M. Yakountchikoff's and the Egger Cat. specimens, and the other between M. Jameson's and the French Cabinet's coins.

This type affords the only instance of an electrum coin at Chios, with the exception of the fifth-century stater, in which the Sphinx is depicted to left.

The silver didrachms that I suggest for this period are the following:

8. *Obv.*—Sphinx of archaic style seated l. on plain exergual line; wing curled; hair in dense mass like an Egyptian wig; both forelegs showing, but not drawn in perspective.

Rev.—Plain incuse square ; punch-struck.

Æ. 17·00 mm. 120·2 grains (7·79 grammes). Chian didrachm. Berlin Cabinet ex Imhoof-Blumer Coll. 1900. [Pl. I. 9.]

9. *Obv.*—Sphinx of archaic style seated l. on dotted exergual line; wing slightly curled ; hair long, with separate lock hanging from crown of head and ending in a spiral curl; further forepaw raised holding a lotus-flower; between fore and hind legs a cock's head l. Circle of dots.

Rev.—Quartered incuse square ; punch-struck.

Æ. $\frac{17·00}{15·00}$ mm. 121·3 grains (7·86 grammes). Chian didrachm. Berlin Cabinet, from Sakha hoard, 1899. [Pl. I. 10.]

? mm. 120·4 grains (7·80 grammes). Chian didrachm. Berlin Cabinet, from recent find in Egypt, 1914.

$\frac{18·00}{15·00}$ mm. 119·75 grains (7·76 grammes). Chian didrachm. Coll. J. R. McClean, Fitzwilliam Museum, Cambridge. [Pl. I. 11.]

10. Variety of preceding in which the Sphinx does not hold lotus-flower in upraised forepaw.

Æ. $\frac{18·00}{13·50}$ mm. 111·9 grains (7·244 grammes). Chian didrachm, from Sakha hoard. *Num. Chron.*, 1899, p. 277, No. 16.

$\frac{19·50}{12·75}$ mm. 121·8 grains (7·895 grammes). Chian didrachm. My collection ex Philipsen Coll., No. 2242, Hirsch's Cat., 1909.

11. *Obv.*—Sphinx l. like No. 9, except that the exergual line is plain, and that there is a lotus-flower between Sphinx's fore and hind legs in place of the cock's head.

Rev.—Quartered incuse square of larger size than any hitherto described ; punch-struck.

Æ. $\frac{17{\cdot}00}{13{\cdot}50}$ mm. 120·4 grains (7·80 grammes). Chian didrachm. Coll. B. Yakountchikoff ex O'Hagan Coll., No. 587 (part of) Sotheby's Cat., 1908. [Pl. I. 12.]

Broken didrachm known to Dr. Dressel of Berlin.

12. *Obv.*—Sphinx l. like No. 9, but of somewhat later style and without either exergual line or lotus-flower in upraised forepaw. The separate lock on head is also doubtful.

Rev.—Quartered incuse square of earlier type than No. 11; punch-struck.

Æ. $\frac{15{\cdot}00}{13{\cdot}50}$ mm. 115·5 grains (7·48 grammes). Chian didrachm. Coll. Sir H. Weber from Sakha hoard, *Num. Chron.*, 1899, p. 277, No. 15.

17·00 mm. 119.75 grains (7·76 grammes). Chian didrachm. Coll. B. Yakountchikoff, No. 368, Hirsch's Cat., vii. 1902. [Pl. I. 13.]

13. *Obv.*—Sphinx of refined archaic style seated l. on plain exergual line; she wears round ear-ring; both wings show in perspective curled at tips; hair long with conventionalized lock of tendril-like form projecting from back of head; further foreleg shows behind nearer.

Rev.—Quartered incuse square of similar type to No. 11; punch-struck.

Æ. 16·25 mm. 121·6 grains (7·88 grammes). Chian didrachm. Coll. B. Yakountchikoff ex Sherman Benson Coll., No. 696, Sotheby's Cat., 1909. [Pl. I. 14.]

No. 8. This coin is unique in my experience, and, although in bad condition, may be seen to have points of resemblance, especially about the head, with the first electrum stater of this period, No. 5. The manner in which the forelegs are drawn and the plain incuse square connect it with the silver didrachm, No. 4.

This is the last time that the plain incuse appears in the series, and there is no sign here whatever of the punch having originally been quartered but worn smooth by use.

Nos. 9–12. These types were first published by Sir Hermann Weber and Dr. Dressel in their descriptions of the Sakha hoard (see note 7 above). Judging from the varieties to be noted among them, their issue, taken as a whole, seems to have been a more plentiful one than any of its predecessors. I illustrate two coins of type No. 9 [Pl. I. 10 and 11] so as to show the cock's head and peculiar exergual line clearly.

There must have been some little interval between No. 8 and the present group, which is distinguished from all other silver issues of Chios, previous to the Roman period, by the Sphinx's upraised forepaw. The design has suddenly become more ornate, and the dotted border, very finely executed on some specimens, is a novel and unusual feature for the period. Still, the large head and straightly falling mass of hair are typical of archaic art, and connect the group intimately, although the type is so different in other respects, with the electrum stater No. 6. The peculiar shape of the Sphinx's wing also does this, for no wing quite like it is seen again on the sixth-century didrachms, though it had already occurred on the earlier electrum [Pl. I. 4]. The upraised forepaw is, of course, a link with the electrum stater No. 7, which, as we have seen, may on general grounds of style be placed later than No. 6.

No. 12, in spite of its older reverse, is, I think, a little later than the rest of these coins with the dotted border, because of the smaller head and the attempt made to

show its shape beneath the hair.[37] The flan is also less bullet-shaped. The two coins representing this type, which is the rarest of the group, are struck from the same dies, both obverse and reverse. Otherwise I have observed no community of dies between this and the other members of the group.

With regard to the cock's head and lotus-flower symbols, it is difficult to say whether they should be regarded as magistrates' signets, or simply as adjuncts peculiar to the Sphinx. The former would not be inconsistent with the oligarchic government in power at the time, especially as just such a use was then being made of symbols at Teos.[38] But if the practice had ever been adopted, it is hard to see why it should have been abandoned before the coming of the tyrants. And yet we have the evidence of No. 12 to show that this must have taken place even within the limits of this particular group.

The facts necessary for the settlement of the question are very incomplete, of course; but until the sands of Egypt reveal more specimens I prefer to consider these symbols as mere accessories to the design of the coins.

The lotus-flower, as we have seen, was associated with the Sphinx in its rôle as a chthonic deity, and the cock had a similar significance.[39]

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[37] When publishing this coin in *Num. Chron.*, 1899, p. 277, Sir H. Weber placed it earlier than the type here called No. 10, but the dotted circle is not visible on his specimen.

[38] *B. M. Cat., Ionia*, pp. 309–10, and Pl. xxx. 2, 3, 4, and 5.

[39] See D'A. W. Thompson's *Glossary of Greek Birds, sub voce* ἀλεκτρυών, p. 24. It appears as an offering to the dead on some of the archaic Spartan bas-reliefs; see the summary account of these monuments in Tod and Wace, *Catalogue of the Sparta Museum* (1906), pp. 102 ff.

No. 13. This charming coin has never been published, and is unique to the best of my belief. No one can fail to recognize its close resemblance to the electrum stater No. 7. In fact, it might be the work of the same artist. Though this resemblance naturally confines it to the limits of the present period, it comes much nearer in general appearance to the more familiar types next to follow than to anything that has preceded it in the course of this review. It seems, in a word, to stand on the boundary between the rare coins that we have just studied somewhat minutely and the comparatively common types of the later archaic period.

It will have been noticed that all the coins just described, representing types 8–13, belong unequivocally to the local standard of Chios. The only piece about which a doubt might be raised is the former of the two specimens under No. 10, weighing 111·9 grains (7·244 grammes). But since it is well in excess of the maximum attained by the Graeco-Asiatic standard, it seems fair to regard it as a light specimen of the Chian system. In fact, from the beginning of this period till the middle of the fourth century or thereabouts, there is no reason to suppose that any other standard for silver but the local one was used at Chios.

Period III. 545–500 B.C.

It has already been observed that the coinage of electrum must have ceased under the Persian rule that now controlled the affairs of Chios. On the other hand, there can be no doubt but that the coinage of silver largely increased from this time onwards. Not only is there a great variety of types, but the coins themselves are no longer so rare as previously.

The chief characteristics to be noted are the occasional use of a wreath round the type, and the gradual evolution of the amphora in front of the Sphinx. Two contemporary artists are worthy of mention. These were Bupalus and Athenis, the sons of Archermus, and enough is known about them to show that they worthily carried on the traditions of their family.

The growth of trade in spite of foreign rule, that we may deduce from the more plentiful coinage, may possibly be connected with the acquisition by the Chians at this time of the territory of Atarneus. We are told that they owed this grant of fertile land to the generosity of Cyrus in return for treacherously giving up to him a Lydian called Pactyas, who had taken sanctuary at the temple of Athena Poliouchos in the island.[40]

Whatever the truth of the story may be, the Chians benefited much from their new possessions, which contained silver mines and hot springs, as well as the direct means of increasing their food supply.

Under the influence of the Persians a new party arose in the state that led to the overthrow of the oligarchy and the establishment of a tyranny. As in all the other cities of the League now subject to Persia, the tyrants in Chios were natives of the island, and one of them, named Strattis, has acquired a certain notoriety.

It was he who supported Histiaeus, tyrant of Miletus, in selfishly refusing to destroy the bridge over the Ister, and so ruin the Persians under Darius in Scythia. Histiaeus was rewarded for his services, but led the

[40] Herodotus viii. 106, and Pausanias iv. 35.

revolt nevertheless. Strattis, who seems to have remained faithful to Darius during the early stages of the revolt, was deposed, and the aristocratic government was re-established in Chios.

This rapid review of events between the fall of the Ionian League and the famous Revolt is sufficient for numismatic purposes, as we have no means of knowing whether or not the main political events of the day found an echo in Chios, and, if so, were accompanied by any particular issue of money.

It would be of supreme interest if we could trace signs of the impression made on the vassal state by the death of Cyrus, for instance; by the victories of Cambyses in Egypt, not at all an unlikely cause of celebration; or by the accession of Darius. We find coins with a wreath around the type, we note the introduction of a new symbol, and of an important alteration in the type, but we have no hint as to what brought about the changes. We do not even know in what order the various issues, that inevitably fall into this period, followed one another. In attempting their arrangement I have adopted an order that is purely arbitrary, but at least has the merit of being systematic.

Assuming that the amphora, when once introduced, was not again omitted from the type, it follows that coins without an amphora must come first. Then it will be noticed that the amphora takes different forms, which may be supposed to have preceded the time when its shape and position became fixed as we know them on the fifth-century didrachms.

The development of the incuse square on the reverses will be found to confirm this arrangement on the whole,

the punch-mark becoming shallower and the dividing lines broader as we approach the end of the group.

There are still one or two other varieties which might have been mentioned, but the differences that distinguish them from those given below are so slight that it is not worth while to include them as separate types. A case in point is referred to in note 41. The general characteristics of the period are the long hair of the Sphinx and the small size and irregular position of the amphora.

The most important of the known types to be noted in this period are as follows:

14. *Obv.*—Sphinx of refined archaic style seated l.; body lean; wing curled; hair in queue; further foreleg showing well in front of nearer in rough perspective. Around wreath of olive (?).

Rev.—Quartered incuse square divided by narrow bars into deep compartments; punch-struck.

Æ. $\frac{18{\cdot}00}{14{\cdot}00}$ mm. 122·3 grains (7·93 grammes). Chian didrachm. No. 678, Ward Coll., Municipal Museum, New York. [**Pl. II. 1.**]

$\frac{19{\cdot}00}{14{\cdot}50}$ mm. 121·8 grains (7·90 grammes). Chian didrachm. Cabinet de France.

$\frac{17{\cdot}00}{13{\cdot}75}$ mm. 118·8 grains (7·70 grammes). Chian didrachm. My collection.

Not rare.

15. *Obv.*—Sphinx of archaic style seated l.; coarse work; wing curled; hair apparently in long ringlets; further foreleg outlined behind nearer.

Rev.—Quartered incuse square divided by moderately narrow bars into shallowish compartments; punch-struck.

Æ. 17·50 mm. 121·2 grains (7·86 grammes). Chian didrachm. Athens Cabinet. [Pl. II. 2.]

$\frac{20{\cdot}00}{15{\cdot}25}$ mm. 119·6 grains (7·75 grammes). Chian didrachm. Cabinet de France, No. 4969.

16. *Obv.*—Sphinx of unusually large size and refined archaic style seated l. on plain exergual line; wing slightly curled; hair long; further foreleg outlined behind nearer; before its feet vase without handles on first specimen, and squat amphora on second.

Rev.—Quartered incuse square divided by narrow bars into deep compartments; punch-struck.

Æ. $\frac{17{\cdot}25}{15{\cdot}50}$ mm. 119·45 grains (7·74 grammes). Chian didrachm. Berlin Cabinet ex Coll. Philipsen, No. 2243 Hirsch's Cat., 1909. [Pl. II. 3.]

$\frac{19{\cdot}75}{15{\cdot}00}$ mm. 118·65 grains (7·69 grammes). Chian didrachm. Cabinet de France, No. 4968[a].

17. *Obv.*—Sphinx of refined archaic style seated l. on plain exergual line; wing curled in naturalistic manner; hair long; further foreleg outlined behind nearer. In field l. small amphora with ball at point.

Rev.—Quartered incuse square divided by narrow bars into three very deep and one shallow compartment; punch-struck.

Æ. 17·00 mm. 122·4 grains (7·94 grammes). Chian didrachm. Brit. Mus., No. 2, Cat. Ionia, Chios. [Pl. II. 4.]

17·25 mm. 121·8 grains (7·90 grammes). Chian didrachm. Cabinet de France ex Coll. Luynes, No. 4966.

17·00 mm. 121·8 grains (7·90 grammes). Chian didrachm. Athens Cabinet.

Common.

18. *Obv.*—Sphinx of refined archaic style seated l. on thick exergual line; wing curled; hair in queue; further foreleg showing behind nearer in good

perspective. In field l. small amphora with rounded handles, and ball at point. The whole on circular raised shield with olive (?) wreath around.

Rev.—Quartered incuse square divided by narrow bars into deep compartments; punch-struck.

Æ. $\frac{17{\cdot}00}{14{\cdot}75}$ mm. 120 grains (7·78 grammes). Chian didrachm. Coll. J. R. McClean, Fitzwilliam Museum, Cambridge. [Pl. II. 5.]

17·50 mm. 118·8 grains (7·70 grammes). Chian didrachm. Cabinet de France, No. 4963.

17·50 mm. 121·8 grains (7·90 grammes). Chian didrachm. My collection.

Fairly common.

19. *Obv.*—Sphinx of refined archaic style seated l. on plain exergual line, wearing stephane and hair long; wing curled in naturalistic manner; further foreleg outlined behind nearer. Before its feet small amphora with ball at point.

Rev.—Quartered incuse square divided by broadish bars into irregularly shaped and moderately deep compartments; punch-struck.

Æ. $\frac{21{\cdot}75}{13{\cdot}50}$ mm. 122·25 grains (7·93 grammes). Chian didrachm. Coll. R. Jameson, Cat. No. 1521, ex Delbeke Coll., No. 195; Sotheby's Cat., 1907. [Pl. II. 6.]

$\frac{19{\cdot}00}{12{\cdot}50}$ mm. 119·4 grains (7·74 grammes). Chian didrachm. Municipal Museum, New York, No. 679, Ward Coll.

$\frac{16{\cdot}50}{12{\cdot}00}$ mm. 121·35 grains (7·87 grammes). Chian didrachm. My collection.

Common.

20. *Obv.*—Sphinx of refined archaic style seated l. on plain exergual line; wing curled in naturalistic manner; hair long; further foreleg showing almost fully behind nearer. In field l. amphora with ball at point. The whole in vine-wreath.

Rev.—Quartered incuse square divided by moderately narrow bars into compartments of irregular depth; punch-struck. In the three deepest depressions the letters XIO.

Æ. $\frac{19{\cdot}00}{13{\cdot}00}$ mm. 121·8 grains (7·90 grammes). Chian didrachm. Cabinet de France, No. 4962. [Pl. II. 7.]

17·00 mm. 120 grains (7·78 grammes). Chian didrachm. Coll. R. Jameson ex Taranto find, *Rev. Num.*, 1912, Pl. iii. 7. [Pl. II. 8.]

21. *Obv.*—Sphinx of small size and refined archaic style seated l. on plain exergual line; wing curled; hair in queue; further foreleg outlined behind nearer. Before it amphora on ground line with ball at point, and lines forming handles turned back over mouth.

Rev.—Quartered incuse square divided by moderately narrow bars into shallow compartments; punch-struck.

Æ. 16·25 mm. 119·75 grains (7·76 grammes). Chian didrachm. Berlin Cabinet ex Coll. C. R. Fox, 1873. [Pl. II. 9.]

16·00 mm. 118·8 grains (7·70 grammes). Chian didrachm. Athens Cabinet.

17·00 mm. 122·2 grains (7·79 grammes). Chian didrachm. Museum of Fine Arts, Boston, Mass., U. S. A., ex Warren Coll., No. 1139 of Regling's Cat.

Rare.

22. *Obv.*—Sphinx as preceding, but type arranged on raised circular shield.

Rev.—Quartered incuse square divided by broad bars into roughly shaped shallow compartments; punch-struck.

Æ. 16·50 mm. 118·5 grains (7·68 grammes). Chian didrachm. Museum of Fine Arts, Boston, Mass., U. S. A. From Naukratis, through Egyptian Exploration Fund.

No. 14. It is not absolutely certain whether there is an amphora or not before the Sphinx on coins of this type, although there is no sign of it on any of the three pieces here described. The question must be considered to be still *sub judice*, however, as indications are to be observed on two specimens at Berlin that suggest an amphora.

In any case I think that it is as well to place the type at the beginning of this group on account of the resemblance it bears to No. 13, although inferior as a work of art. The same trick of representing the Sphinx with its hind legs half bent, as if in the act of rising, may be noticed in both. It is also, on the whole, the most archaic looking of all the types assembled under this period. It is difficult, too, to be positive about the composition of the wreath. Ivy or vine-leaves were certainly to have been expected, but there may have been some reason for using an olive-wreath which the design suggests more than anything else.

No. 15. This seems to be a rare type, and the two coins cited are the only specimens I have seen. They are both from the same dies. The type is remarkable for its unusually rough execution, although it shows the earliest signs of that massiveness in the bodily forms of the Sphinx which characterizes many of the subsequent issues.

There is no doubt here about the absence of any amphora.

No. 16 is a very difficult coin to attribute. The style and execution are good, and the weight being Chian there seems no reason to discredit its right to a place among the island's issues. But the vase-shaped

vessel in place of an amphora is enough to have raised doubts as to this among some authorities. The absence of handles, in my opinion, is most likely due to careless engraving or a damaged die, as the Paris specimen, while certainly belonging to the same issue, though from a different obverse die, shows a similarly shaped vessel with handles.

This type also seems rare, and has never been published.

No. 17 is probably the most familiar of these sixth-century types. Apart from the doubtful case presented by No. 14, it may be said to record the earliest appearance of the real amphora on coins of Chios. The specimen from Athens also seems to furnish us with the first instance of the letters XIOΣ in the depression of the incuse square. The undoubted occurrence of these letters on later issues will be found referred to below. Although a transient feature of the coinage, it is a fact that has not hitherto been established.

No. 18 seems to be modelled upon No. 14, although clearly of slightly later date. It is interesting as being the first issue to show the raised circular shield, as a background for the type, which later became an unfailing feature of the island's money. This convex field may not have been intentional at first, although it certainly became so afterwards, but its appearance here is an instance of the fact that what are so often taken for innovations in coins are frequently only revivals.

Another well-known instance of this is the crescent on the reverse of Athenian tetradrachms, supposed at one time to have been first used on coins of the third period according to the British Museum Catalogue (see

Attica, Pl. iii. 3–5), but now known from the Taranto find to have originated much earlier (*Rev. Num.*, June 1911, Nos. 14 and 15, Pl. i. 11 and 12).

No. 19. This is another common type. The issue is noticeable for its oval flans, and for the rough form of incuse. The quartering lines or bars become really broad now for the first time.

No. 20. This highly finished type has been brought into prominence by M. Babelon's description of the Taranto find (*Rev. Num.*, June 1911, Pl. iii. 7), and provides us with one of the few fixed points that we possess for the dating of Chian coins. The evidence of the hoard indicates that none of the coins contained in it were struck later than 510 B.C. This issue may, therefore, be safely assigned to a period some ten or twelve years prior to the Ionian Revolt. On grounds of style it may confidently be placed later than the five types already described here, and for reasons given below the two succeeding ones, Nos. 21 and 22 must probably have followed it.

On account of the interest and rarity of the type I am illustrating both the specimens described. They are the only ones known to me, and moreover they supplement one another in their details. It will be noted that the obverse dies are different, but the same reverse die has been used for both pieces. The Bibliothèque specimen is probably the later of the two as the letters in the depressions of the incuse, which are undoubted on this case, are more difficult to distinguish than on M. Jameson's coin. At no time do they show up well on being reproduced.

No. 21. We have now reached a stage in the evolution of the Chian didrachm that approximates very

closely to the fully developed fifth-century type. While still showing unmistakable signs of the archaic period of art in the treatment of the features of the Sphinx, and in its long hair, this coin will at once be recognized as the most advanced of those so far described.

It presents, moreover, an apparently unimportant point of resemblance to the fifth-century coins that constitutes a certain link with them. I refer to the fact that the lines composing the handles of the amphora are continued after touching the lip and bent back in opposite directions over the mouth of the vessel. This I take to be a rough method of representing an amphora closed with a stopper, which is the way in which the amphora is invariably represented during the period of early fine art, and was only relinquished when more careless work was introduced just before the opening of the Peloponnesian war.

It is mainly owing to this small detail that I venture to assign this and the succeeding type to the period between *circa* 512 B.C., marked by the unstoppered amphora-type No. 20, and the Ionian Revolt.

No. 22 is a unique variety of the last in which the raised circular shield appears again. The reverse of the type is indistinguishable from those seen on the fifth-century coins, thus bringing the development still one step nearer to that oft-mentioned goal.[41]

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[41] There is an archaic didrachm in Sir H. Weber's collection of similar style to the later coins of this group, but with an amphora stoppered as on the fifth-century pieces. It may be a little later than No. 22, and again it may be another case where a feature, common in later times, has appeared once and then been discarded for a period. See remarks under No. 18, above.

Before leaving this period it will be as well just to mention the small pieces bearing a Sphinx in various positions on the obverse, and different types on the reverse, which, from their style, may all be said to belong to the sixth century. M. Babelon has suggested (*Traité*, vol. ii, p. 1134) that these coins may be alliance pieces between Chios and some of the neighbouring cities. If we could be sure of this the coins in question ought to find their place here, but considering the uncertainty that attends the question of these double-typed coins, I prefer not to go into it any further.[42]

None of the coins are of the Chian standard, and the style of all, with the exception of one bearing a Gorgoneion on the reverse (*Num. Chron.*, 1913, p. 268, Pl. xiii. 9), is very unlike that of any known Chian issue.

Period IV. 500–478 B.C.

With the outbreak of the revolt, as mentioned above, the tyrant Strattis was deposed, and the oligarchy was restored in Chios under magistrates called στρατηγοί. It is in the highest degree probable that this revival of the civic power was signalized in all the states of the League by fresh issues of electrum coins.

The staters of various types, but similar fabric, to which Head first drew attention (*Num. Chron.*, 1887, p. 281), are now generally recognized as the coinage of the Ionian Revolt. The papers already referred to by Prof. P. Gardner and M. R. Jameson independently pointed to this event as the most likely source of the

[42] See above, p. 7, where attention is drawn to a note under "Miscellanea" in *Num. Chron.*, 1913, giving all the facts relating to these doubtful coins.

issue. It is a highly plausible theory, and as satisfactory as such things well can be. The chief point of interest for the present inquiry is the share that Chios may have had in this federal coinage.

All the coins forming the group in question have one feature in common, to wit, the type of their reverse. This consists of a shallow incuse square neatly quartered by fine lines, and anvil-struck.[43]

The stater attributed by M. Jameson to Priene (*Trouvaille de Vourla*, Pl. i. 4) differs from the rest in having no cross-lines in the incuse square, but this may be due, as he suggests, to a damaged die. Then the specimen with the Free Horse, attributed to Cyme (No. 7 of Prof. Gardner's list, *Journ. Hellen. Studies*, 1911), seems also to be an exception on account of its punch-striking. But it can, I think, be shown to be too old for the period suggested, like its Chian companion. In her "Electrum Coinage of Lampsakos", Miss A. Baldwin illustrates a more probable candidate with the characteristic reverse, which quite satisfies the conditions. It will also be seen from this paper that Miss Baldwin, who gives the whole history of the question, pp. 27–32, agrees with M. Jameson's choice of the coin to be ascribed to Chios at this juncture.

In his description of the Vourla find (*Rev. Num.*, 1911, pp. 67–8) M. Jameson pointed out that a Chian stater showing this reverse had appeared at the sale of the Lambros collection (No. 701, Hirsch's Cat., 1910), and he subsequently assigned it to the date 500 B.C. (Cat. Jameson, No. 1520[a]).

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[43] See Earle-Fox, "Early Coinage of European Greece," *Corolla Numismatica*, p. 34.

Not only does this type justify its attribution from all points of view connected with style and fabric, but it is the only extant type to do so in my opinion. The stater described above under No. 5, which was selected by Prof. Gardner for this purpose in his "Gold Coinage of Asia", has since been rejected by him as of too early date. Then the coin which he chose to take its place in his subsequent paper, "The Coinage of the Ionian Revolt," is most probably a forgery, and I have purposely refrained from publishing it here. And finally, the only Chian stater in the Vourla find (type No. 6 of the present arrangement), which consisted, otherwise, of coins now regarded as contemporaneous with the Ionian Revolt, is also acknowledged by M. R. Jameson to belong to an earlier issue.

A point to which, I think, hardly enough attention has been given is this very question of the reverse employed for the issue under discussion. All writers on the subject agree that the various members of this coin-group exhibit the same reverse, and the apparent exceptions to this have already been examined above.

Though the suggestion put forward by Six (*Num. Chron.*, 1890, p. 219) that Chios was the place of mintage of all these coins need no longer be seriously entertained, there is no denying the fact that they bear a strong family resemblance to one another both in style, fabric, and gold contents.

But the fabric is not that of the Chian mint. I would go further and say that, if a common mint be postulated, then it must be some other city of the League and not Chios. The probability, however, is that each member struck its own share of the issue

after agreeing to follow some general rule for the preservation of uniformity.

If so, then Chios departed, for the time being and so far as regards the reverse, from the hitherto unbroken tradition of her mint. It will be noticed from the foregoing descriptions that all the island's coins, from the earliest times to the date at which we have now arrived, are what is known as punch-struck.

This, judging from the very earliest electrum pieces, seems to have been the original method of coinage. But, at a comparatively early date, the rival method of anvil-striking, of which the Aeginetic coinage is the most familar type, came into use as well, and the two were pursued concurrently in different states. For instance, in the case of electrum previous to 550 B.C., coins attributed to Ephesus, Erythrae, Miletus, Samos, and Chios, show the punch-striking method. There are some that do not, but they are of doubtful origin. For silver previous to and shortly after 500 B.C. Miletus and Chios are alone among the Ionian states in employing punch-striking. In other words they were more conservative. The coins of all the rest, Clazomenae, Colophon, Ephesus, Erythrae, Phocaea, Teos, and Samos, are invariably anvil-struck.[44]

It is clear then that, though Miletus and Chios were the leading states in the Revolt, and set the weight-standard for the federal coinage, some other city or cities provided the model.

[44] *Brit. Mus. Cat.*, *Ionia*, Pl. vi, viii, ix, xv, xxiii, xxx, and xxxiv. It will be noticed that when once the method of striking was changed, as in the case of Ephesus, Erythrae, and Samos, it was applied generally to all subsequent issues, at any rate until a reverse type was introduced. After that the question is more difficult to decide.

On this ground alone the issue of Chios next to be described stands out among all her other electrum coins as an unusual product of her mint, and helps to prove that the coinage of which it evidently formed part was the outcome of peculiar circumstances.

So far there has been no evidence of any silver issue that could be looked upon as contemporary with the Chian Revolt staters. The Vourla find seems to have proved that Clazomenae issued divisional pieces in silver to accompany her staters, and it has been shown that Lampsacus at least among the other cities did the same.[45] On the other hand the tetrobols, that Prof. Gardner suggests for Chios, are unquestionably of later date.

The electrum stater proposed for the period of the Ionian Revolt is the following:

23. *Obv.*—Sphinx of strong archaic style seated r.; wing curled in naturalistic manner; she wears stephane, round ear-ring, and hair long on neck with a separate conventionalized lock rising from crown of head and terminating in a tendril-like spiral; the further forepaw is raised and grasps a lotus-flower (?). The tail bears a tuft.

Rev.—Quartered incuse square divided by fine bars into shallow compartments; anvil-struck.

El. $\frac{21{\cdot}50}{18{\cdot}50}$ mm. 217·3 grains (14·08 grammes). Milesian stater. Coll. R. Jameson, Cat. No. 1520[a], ex Lambros Coll., No. 701, Hirsch's Cat., 1910. [Pl. II. 10.]

19·00 mm. 215·9 grains (13·99 grammes). Milesian stater. Boston Museum, Regling, Sammlung Warren, No. 1736, Taf. xxxvii.

19·50 mm. 214·5 grains (13·90 grammes). Milesian stater. Munich Cabinet.

[45] P. Gardner, "Coinage of Ionian Revolt," *J. H. S.*, 1911, p. 157, and Miss Baldwin, *op. cit.*, p. 19.

It will be observed that, in addition to the unusual reverse, this coin has a much flatter flan than any other electrum stater of Chios. The work is archaistic; and the revival of the conventionalized lock of hair at this moment of national crisis is most interesting, this being its last appearance on the coinage. On the other hand the treatment of the wing betrays the freer style that art had attained by this date, and connects the coin with didrachms Nos. 19–20. The stephane also had not been seen on anything earlier than the former of these two coins. The lotus-flower is not quite distinct, but it seems a more likely object—judging from this stater's predecessors—than the "little club", by which term it is customary to describe it.

It is unnecessary to recapitulate here the well-known story of the Revolt, and the prominent part played in it by Chios, but the events subsequent to the terrible vengeance wreaked upon the island by Persia after the battle of Lade are not quite so familiar.

There seems to be no doubt but that the population was swept together as in a net,[46] and deported wholesale, leaving nothing behind but ruined temples and ravaged vineyards. This took place about one year after the battle of Lade, say in 493 B. C. But the exile did not last long, for in this same year Artaphernes granted a constitution to the Ionians, and the inhabitants of Chios began to return. An opportunity was soon found for the restoration of their old tyrant Strattis,[47] under whom the island remained faithful to Persia longer than some of its neighbours, and actually sided with Xerxes against Greece.

The battle of Salamis caused the national or aristocratic party to revive, and an attempt was made to

[46] Herodotus vi. 31.

[47] *Ibid.* viii. 132.

assassinate Strattis. Though this failed, it was the indirect cause of the expedition of Leotychides and the battle of Mycale. That echo from Plataea effectually strengthened the hands of the oligarchy, and Strattis disappears from history for the last time.

It has been suggested that the destruction caused by the Persians' raid must have been so great that Chios can have been in no condition to coin money for a considerable time. This barren period has generally been held to extend over the fifteen years between the battles of Lade and Mycale. But the fact that the inhabitants came back so soon after their exile has, I think, been overlooked. Strattis and his Medizing party seem to have had nearly the whole of the above-mentioned period in which to rebuild the fortunes of the state. And though they may not have done much, it does not seem unreasonable to suppose that some coins were struck as a mark of their return to power.

So far, however, it must be admitted that we cannot assign any particular issue to this period. It may be that types approximating to Nos. 21 and 22, perhaps even No. 22 itself, belong here, or that the earliest coins with a bunch of grapes above the amphora were now struck for the first time. But it is too fine a point to be settled by anything other than a luckily constituted find. It is safest, on the whole, to leave all coins with an amphora only, as has been done here, to the period before the Ionian Revolt; and to assume that the bunch of grapes was not introduced till after the battle of Mycale.

A CHRONOLOGICAL ARRANGEMENT OF THE COINS OF CHIOS; PART II.

(See Plates III, IV)

INTRODUCTORY NOTE.

Since the publication of the first part of this study in the *Numismatic Chronicle*, and after the following pages were practically ready for the press, there appeared in the *Journal of the American Numismatic Society* a monograph by Miss A. Baldwin on the Electrum and Silver Coins of Chios issued during the sixth, fifth, and fourth centuries B.C.

The author has here brought together such a wealth of material, and stated her conclusions in so clear and concise a manner, that I felt on first seeing the paper that it would be a work of supererogation to go over the same ground again. As the present article, however, is only a portion of the whole task that I have set myself, I have decided, with the kind permission and encouragement of the Editors, to entrust it to the *Numismatic Chronicle* as originally intended. In doing so I have now the advantage of Miss Baldwin's researches, which not only covered a wider field than my own, but record a greater number of types than mine do even from sources explored by us both. This is especially noticeable in the case of the didrachms

belonging to the archaic and transitional periods. Altogether Miss Baldwin's catalogue provides a store-house compared with which the information collected by Mionnet and Kofod Whitte, to whom I have alluded as pioneers in our particular line of inquiry, presents little more than an academic interest.

Reference to Miss Baldwin's work will accordingly be found below wherever it seems worth while to draw attention to the fresh evidence supplied by her, and wherever it has become necessary for me to alter my original views in consequence of the force of her arguments. As a matter of fact, our conclusions with regard to the period now under review are in agreement on all major points, but it may have been noticed that we differ in one or two important particulars connected with the archaic period. As the present seems a fitting occasion on which to refer to these I propose to do so now as briefly as possible.

Miss Baldwin contends, very justifiably from her point of view, that the earliest electrum staters that we possess should not be dated earlier than 550 B.C. I prefer to follow the authorities who think that no electrum coins were struck by the Greek states during their subjection to Persia. In consequence of this, and of my bias in favour of the precocity of Ionic art, it will be found that my types Nos. 3 and 5–7 are dated earlier than Miss Baldwin's more independent standpoint allows by about fifty years on the average.

In arranging these issues I placed type No. 5 before No.6 chiefly on the strength of what I took to be its more primitive incuse square. Miss Baldwin reverses this order, and her arguments, based on the style of the coins (Nos. 3–6 of her Pl. i), whatever may be the

correct interpretation of their incuses, are quite convincing. The only other important difference of opinion between us—though there are several minor points that would take too long to discuss here—is that concerning the dates we respectively ascribe to the bulk of the archaic silver coinage.

My attribution of the electrum coins naturally led to a corresponding, though of course conjectural, arrangement of the archaic silver wherever possible, as may be seen from the notes on my types Nos. 8–13. Miss Baldwin was forced, for similar reasons, to choose a narrower field, but she seems to me to have crowded the issues together even more than the limits of her period demanded.

On the assumption that the coins she illustrates, Nos. 19–23, Pl. i, are the contemporaries of the stater of the Ionic Revolt (Nos. 9–12, Pl. i) she is obliged to assign some twenty different types, mostly illustrated on Pl. ii, to the years 500-490 B.C. As there is a strong probability that no coins at all were struck for at least three or four years after 494 B.C., this already restricted period must be still further reduced to about six years. But there is a stronger argument still for pushing back and extending the dates of Miss Baldwin's Pl. ii, &c. This is the evidence of the Taranto hoard (*Rev. Num.*, 1912, pp. 1–40), consisting as it did of a large variety of archaic silver coins all earlier than 510 B.C. This hoard included the didrachm No. 25 of Miss Baldwin's Pl. ii, or my type No. 20. It is a fine example of what archaic art was capable of producing at this time, and is, moreover, a most valuable landmark in the Chian series. We are thereby provided with a criterion of date of much greater value than that

afforded by the resemblance between the didrachms with the uplifted paw and the electrum stater of the Ionic Revolt, a resemblance that is due, in my opinion, to the deliberate archaism of the latter.

Period V. 478–431 B.C. (?).

When the tyranny with its Persian sympathies had been finally abolished, Chios became once more a purely Greek island, and entered upon that period of peace and prosperity that was to make her the envy of all her neighbours.[48] Whereas in the sixth century Samos had been the most powerful Ionian community, the lead passed to Chios after the Persian wars, and for the best part of seventy years the island was able to devote all its energies to the development of its resources. It was rare indeed among the Greek city-states for such a long term of years to pass without war, and, more remarkable still, without civil strife.

At first the oligarchy or aristocratic party had complete control of affairs, and seems to have conducted them very successfully. Then, under the influence of Athens, a democratic party arose for the first time in the island's history, and gained ground steadily, though only slowly at first. This sowed the seeds of all the subsequent faction and disorder that wrought such destruction in Chios towards the end of the fifth century. But during the course of the present period, or at any rate during the earlier part of it, Chios seems to have been an eastern rival of Athens. That state of things could not last for long of course, and as Athens grew

[48] Thucydides viii. 24.

the island had either to submit to the greater power or become its ally. The ruling party was wise enough to perceive the advantage of the latter course, and, though secretly antagonistic to her, its members kept up the appearance of being sincerely friendly to Athens. They maintained their position in the state by yielding on every occasion when Athens interfered in its affairs, and at the beginning of the Peloponnesian war Chios even sent her fleet against Sparta though really in sympathy with her cause.

It is to the period of true independence, which is hard to define within a decade, that belong the famous didrachms and tetrobols that are perhaps the best known of the island's silver coins. They must have been issued in large quantities, but a really fine specimen is very hard to obtain, for in spite of the skill and care with which the dies were executed the coins are seldom well struck. The weight is carefully preserved on the whole, but does not quite equal that attained by the didrachms of the previous century. It is by no means unusual to come across one of the latter weighing 123 grains (7·97 grammes), or the maximum of the standard, but among the fifth-century didrachms 121·5 grains (7·87 grammes) is the highest point touched in my experience. This is confirmed by the tetrobols, the heaviest I know of being No. 13 of *B. M. Cat.: Chios*, which weighs 40·5 grains (2·624 grammes), and thus exactly represents the limit reached by the didrachms.

The type carries on the leading features of the previous century with the addition of a bunch of grapes above the amphora, and a few minor refinements, some of which have already been noted as

appearing sporadically in the last period but one. The amphora itself, for instance, is neatly fitted with a stopper, and the hair of the Sphinx is always raised. The whole design, moreover, is invariably arranged on a convex circular shield.

The varieties, although insignificant from the point of view of artistic interest, are sufficiently numerous to show that these issues must have continued uninterruptedly over a considerable period. No better proof could be found of the conservative policy of the mint thus far than the way in which the simplicity of the type was preserved at a time when artistic development was at its highest. The bean-shaped flan, punch-struck incuse, and division into thirds are also signs of adherence to previous tradition and to Ionian influence. The analogy with Athenian contemporary practice is striking as regards the archaism of the coins, but there is not a trace as yet of Athenian influence over the methods of the mint. That was still to come. We have no record of any sculptors of note during this period, but the engraver Dexamenos, who flourished between 460 and 430 B.C., is known to have been a native of the island. Most of his work, however, if not all of it, is supposed to have been done outside Chios, and nothing has yet been discovered among its coins that could be ascribed to him.

One of the most keenly discussed subjects connected with the Chian series finds its place in the present period. I allude to the late electrum issue struck on the Cyzicene, or, according to M. Babelon, on the Lampsacene standard. This is represented to-day by a unique stater at Berlin, which has been attributed to such widely different dates as the last quarter of

the sixth[49] and the first half of the fourth century B.C.[50]

The latest student of the question, Miss A. Baldwin, in her "*Electrum Coinage of Lampsakos*", pp. 15–18, suggests the decade 450–440 B.C. as the probable date of this stater's issue. The author bases her arguments on considerations of style as between this actual piece and the other fifth-century coins of Chios on the one hand, and the Ξ staters of Lampsacus, independently proved to have been issued *circa* 450 B.C., on the other. I entirely agree with her conclusions, though inclining towards the later limit of the date suggested by her rather than the earlier one.

It seems to me that this coin was struck at the height of the Chian prosperity already referred to as having occurred between the Persian and Peloponnesian wars, and while the island was still perfectly independent. The issue may very well have been made with the object of competing on the Athenian market with the Cyzicene staters that were then in such keen demand there.[51]

The following are the principal types of the didrachms and tetrobols:

24. *Obv.*— Sphinx of transitional style seated l. on plain exergual line; wing curled in naturalistic manner; hair rolled; and further foreleg

[49] Babelon, *Traité*, ii, pp. 191–3.

[50] Von Sallet, *Kgl. Münzkabinett*, No. 82.

[51] It will be noticed that, as M. Babelon has already observed *loc. cit.*, the weight of this stater is rather lower than that of the Cyzicenes, 236·7 grains (15·34 grammes) as against 252–246·9 grains (16·33–16·00 grammes). At the conventional ratio of 10 : 1, as between silver and electrum, twenty of the contemporary silver didrachms would have been almost exactly equal in value to one of these staters.

showing behind nearer. In front stoppered amphora [with ball at point], surmounted by bunch of grapes hanging perpendicularly. The whole on raised circular shield.

Rev.—Quartered incuse square divided by broad bars into moderately deep and irregularly shaped compartments; punch-struck.

Æ. $\frac{19{\cdot}50}{13{\cdot}00}$ mm. Weight? Chian didrachm. Cabinet de France. [Pl. III. 1.]

25. *Obv.*—Sphinx of transitional style seated l. on plain exergual line; wing curled in semi-conventionalized manner; hair elegantly dressed on top of head; further foreleg outlined beyond nearer. In front stoppered amphora, with ball at point, surmounted by bunch of grapes hanging perpendicularly. The whole on raised circular shield.

Rev.—Similar to preceding.

Æ. $\frac{16{\cdot}50}{14{\cdot}00}$ mm. 120·3 grains (7·795 grammes). Chian didrachm. My collection. [Pl. III. 2.]

(Miss Baldwin places this, or a similar type, at the end of her didrachm series, No. 44, pp. 22–3. I prefer this order because the eye of the Sphinx is not in profile as in the succeeding types, and the position of the bunch of grapes connects this with the earlier type, No. 24.)

26. *Obv.*—Sphinx of early fine style seated l. on plain exergual line; wing curled in semi-conventionalized manner; hair arranged in a mass of short curls; further foreleg outlined behind nearer. In front stoppered amphora, with ball at point, surmounted by vine-branch showing leaves and bunch of grapes inclined to left. The whole on raised circular shield.

Rev.—Similar to preceding except that the bars are extra broad.

Æ. 15·75 mm. 121·2 grains (7·85 grammes). Chian

didrachm. Coll. B. Yakountchikoff ex Sherman Benson Coll., No. 696 (part of), Sotheby's Cat., 1909. [Pl. III. 3.]

16·50 mm. 121·5 grains (7·87 grammes). Chian didrachm. Brit. Mus., No. 7, Cat. Ionia, Chios.

$\frac{16·50}{15·00}$ mm. 120·2 grains (7·792 grammes). Chian didrachm. My collection.

26ª. Variety of preceding without leaves to vine-branch over amphora.

Æ. $\frac{18·50}{14·50}$ mm. 120·4 grains (7·80 grammes). Chian didrachm. Cabinet de France. [Pl. III. 4.]

$\frac{17·75}{13·50}$ mm. 121·2 grains (7·85 grammes). Chian didrachm. My collection.

Both common.

27. *Obv.*—Sphinx of early fine style seated l. on plain exergual line ; wing curled in more naturalistic manner than in other coins of this period ; hair elegantly dressed ; only one foreleg showing. In front stoppered amphora [with ball at point]. The whole in vine-wreath, showing a bunch of grapes both before and behind the Sphinx, on raised circular shield.

Rev.—Quartered incuse square divided by broad bars into shallow compartments ; punch-struck.

Æ. $\frac{16·50}{12·50}$ mm. 119·8 grains (7·76 grammes). Chian didrachm. Brit. Mus., No. 12, Cat. Ionia, Chios. [Pl. III. 5.]

(Miss Baldwin calls all these coins transitional, but I am venturing to divide them into transitional and early fine art, with the drawing of the Sphinx's eye as a test.)

28. *Obv.* — Sphinx of transitional style seated l. on plain exergual line ; wing curled in semi-conventional manner ; hair rolled ; further foreleg showing behind nearer. In front stoppered

amphora, with ball at point, surmounted by bunch of grapes inclined to l. The whole on raised circular shield.

Rev.—Quartered incuse square divided by narrow bars into moderately deep compartments; punch-struck.

Æ. 10·50 mm. 39·3 grains (2·545 grammes). Chian tetrobol. Mr. W. C. Weight's stock, 1914. [Pl. III. 6.]

10·75 mm. 37·8 grains (2·45 grammes). Chian tetrobol. My collection.

Rather rare.

29. *Obv.*—Sphinx of early fine style seated l. on plain exergual line; wing curled in semi-conventionalized manner; hair elegantly dressed on top of head; further foreleg outlined behind nearer. In front stoppered amphora, with ball at point, surmounted by bunch of grapes hanging perpendicularly. The whole on raised circular shield.

Rev.—Similar to preceding.

Æ. 10·25 mm. 40·1 grains (2·60 grammes). Chian tetrobol. Cabinet de France, No. 4972. [Pl. III. 7.]

11·00 mm. 39·1 grains (2·53 grammes). Chian tetrobol. My collection.

10·50 mm. 40·5 grains (2·624 grammes). Chian tetrobol. Brit. Mus., No. 13, Cat. Ionia, Chios.

Common.

30. *Obv.*—Sphinx of early fine style seated l. on plain exergual line; wing curled in semi-conventionalized manner; hair arranged in a mass of short curls; only one foreleg showing. In front stoppered amphora, with ball at point, surmounted by bunch of grapes inclined to l. The whole on raised circular shield.

Rev.—Similar to preceding.

Æ. 11·00 mm. 39·3 grains (2·545 grammes). Chian tetrobol. Brit. Mus., No. 15, Cat. Ionia, Chios. [Pl. III. 8.]

Uncertain rarity.

The electrum stater referred to above may be described as follows:

31. *Obv.*—Sphinx of early fine style seated l. on plain exergual line, raising further forepaw; wing curled in semi-conventionalized manner; hair rolled. In front stoppered amphora, with ball at point, surmounted by bunch of grapes which hangs from vine-wreath encircling the type and is touched by Sphinx's upraised paw.

Rev.—Incuse square of mill-sail pattern like Cyzicene staters; anvil-struck.

El. $\frac{18{\cdot}50}{17{\cdot}00}$ mm. 236·7 grains (15·34 grammes).
Lampsacene stater. Berlin Cabinet.
[Pl. III. 9.]

No. 24. This is the earliest didrachm showing the bunch of grapes of which I have been able to obtain a cast, and it is also the only one of its type that I have seen. In the collection of Prof. Pozzi, of Paris, there is another early type which may possibly be a trifle older. It has the letters XIOΣ in the depressions of the reverse which were noted in Nos. 17 and 20 of Period III. Miss Baldwin shows two more specimens of this type, and also three intermediate types between it and the next (Nos. 8, 9, and 11–14, Pl. iii).

Nos. 25–7. These types may be supposed to have followed each other in the order given. This is only conjectural, of course, and they do not represent all the known varieties of their class by any means. But they are typical of the principal changes in the design, which are mostly unimportant. The eye of the Sphinx from No. 26 onwards will be observed to be correctly drawn in profile. The flans seem to have become flatter as time went on. No. 25 is a very rare variety, and No. 27 is unique to the best of my belief. There

is no reason to suppose from the wreath surrounding the type that this coin belongs to the same issue as the electrum stater, No. 31.

Nos. 28–30. It is extremely difficult to distinguish between the various issues of these little pieces as they are so carelessly struck, and, with the small surface available, the slight differences to be noted are almost imperceptible. Still, I have succeeded in identifying at least three varieties, and I am illustrating them on **Pl. III** from specimens which, I hope, are sufficiently well preserved to justify my pretensions. Although the wing of No. 28 is rather later in style, though not in shape, than that of the didrachm No. 24, these two coins cannot be much removed from each other in date of issue. It is by far the earliest tetrobol I have seen. It has the full-faced eye, large head, and short wing of the purely transitional coins. No. 29, on the other hand, has the long neck, elegant head, and upright bunch of grapes of the intermediate types of didrachm. And No. 30, showing as it does the characteristic curls of didrachms Nos. 26 and 26[a], may safely be classed as their contemporary. The eye in this type is undoubtedly drawn in profile, as in the didrachms.

No. 31. This unique stater was first published by Fr. Lenormant in the *Rev. Num.*, 1864, Pl. i. 4. From the point of view of style it forms a link between the foregoing silver didrachms and the tetradrachms with their divisions of the next period. The amphora shows the stopper of the earlier coins, which after this is seen no more; but the drawing of the Sphinx by means of a very flat curve between throat and fore-foot, in place of the bird-like outline of the didrachms

and tetrobols, connects it directly with the later issues. The heavy muscular foreleg is also characteristic of the tetradrachm issues, but the wing, on the other hand, comes nearer to the less conventionalized type of the didrachms. The raised shield is absent, and though this is a feature that tends to disappear, and is consequently of value in determining the approximate date of a coin, its absence in this case, taken in conjunction with the other details of the type, may be disregarded. Miss Baldwin very correctly points out that the amphora on this stater, apart from the stopper, has the character of that on the succeeding tetradrachms.

Period VI. 431(?)–412 B.C.

Although the oligarchy continued to rule after the outbreak of the Peloponnesian war, the democracy was now much stronger, and it was only by absolute subservience to Athens[52] that the former party maintained its hold on the reins. Athenian influence was paramount, and when, in a last burst of independence, the islanders tried, in 425 B.C., to fortify their capital, an order came from Athens that the walls were to be thrown down. It was promptly obeyed.[53] So things continued until the news of the Sicilian disaster gave the aristocrats their opportunity. In 412 B.C. they at length threw off the mask and declared for the enemies of Athens, and the renewed strength that they gained under their fresh masters enabled them

[52] Eupolis, quoted by Scholiast on Aristophanes, *Birds*, 881.
[53] Thucydides iv. 51.

to keep the bulk of the population, who did not approve of the revolt, in subjection.

On turning to the coins this growth of foreign authority is clearly reflected in them. It is impossible to say exactly when it began, but probably some time between 440 and 431 B.C. a complete change came over the methods of the Chian mint. Though it is convenient on account of the familiarity of the date to fix the year 431 B.C. as the dividing line between Periods V and VI, I am at the same time marking it as doubtful because it looks as if the change must have taken place a few years before the outbreak of the Peloponnesian war.

It is possible that the decree of Clearchus, or rather the policy that it embodied, which dated from the transfer of the Delian fund to Athens in 454 B.C., may have been the immediate cause of this change in the currency. The decree forbade the use of any silver money but Attic in cities subject to Athens, and the introduction of the tetradrachm, &c., at Chios looks like a compromise between the two states. Chios would have been incapable of refusing to comply with the decree if enforced, and Athens would probably have hesitated to dictate on such a matter to so valuable an ally. The date of the decree is not exactly known, but it fell some time between 454 and 414 B.C.[54]

In the clean sweep now effected the standard and type were preserved, it is true. They had made too good and too wide a reputation for themselves to be interfered with to any serious extent, but the weight

[54] See P. Gardner, "The Coinage of the Athenian Empire," *J. H. S.*, 1913.

was again slightly reduced, and the design was less carefully executed.[55] Everything else that connected the coinage with the old Ionian traditions was swept away. The denominations were altered; the Ionian system of division into thirds and sixths gave way to the Athenian preference for halves and quarters; and the method of anvil-striking was adopted, the old bean-shaped punch-struck flans disappearing for good with the didrachms and tetrobols.

The issues of this new style consisted of tetradrachms, divided into drachms and hemidrachms. No didrachms are known, and their absence is another feature in agreement with Athenian custom. The evolution of this coinage presents a few minor problems. It is customary among most Greek series to find anepigraphic coins followed by others bearing, first, symbols representing the magistrate of the year; next, single letters or monograms, the initials of their names; and finally, the magistrates' names themselves in full. All these steps occur in the Chian issues of the present period, but, as will appear in due course, their sequence in the order commonly supposed to be the normal one cannot be substantiated from the style of the coins. As no other arrangement, however, gives completely satisfactory results, I prefer to follow the stereotyped course, and to point out the objections to it as they arise.

All authorities hitherto have assigned the tetradrachms without symbols or names [Pl. III. 10]

[55] The question of weights will be developed more fully later on. The quality of the work speaks for itself. Compare the amphora and Sphinx's tail of Pl. III. 10 with the same details on any of the didrachms.

to a much earlier date than that now suggested, regarding them in fact as forming part of a coinage in which the didrachms and tetrobols just described [Pl. III. 1–7] were relegated to a subordinate position. But a very little consideration for details of style will, I think, suffice to show that any such theory is untenable. Attention has already been drawn to the chief points under this head in the remarks made above on type No. 31, the electrum stater of the last period. The conventionalized wing exhibited by even the earliest of the tetradrachms, to confine ourselves to one point only, is so obviously a development of the more naturalistic forms found on the didrachms that it is in itself a sufficient proof that the latter must have led the way. The drawing of the Sphinx's body too, and the disappearance of the stopper from the amphora in the coins attributed to the present period, tend in the same direction. Also, the comparatively small differences in treatment between the tetradrachms without names and the earliest of those with them would necessitate moving up a considerable quantity of that large series, not to speak of the few issues with symbols, or the drachms with letters, &c., into the first half of the fifth century, if the theory were carried to its logical conclusion. The impracticability of such a step of course requires no demonstration.

There is also the question of the weights of the different coins. These speak for themselves for the most part, especially when we consider that most of the early tetradrachms that we have are in nearly mint state. The heaviest, as will be seen below, is the one at Boston, which is the counterpart of the

British Museum specimen. This weighs 237·7 grains (15·40 grammes), which represents a didrachm of 118·8 grains (7·70 grammes), whereas it has already been pointed out that didrachms of Period V are known weighing as much as 121·5 grains (7·87 grammes). Besides, since we cannot separate didrachm No. 26 from tetrobol No. 30, nor tetradrachm No. 32 from drachm No. 33, one would have to suppose that two distinct systems of division were being carried on concurrently if all these coins are to be taken as contemporaries. What system do we know, even amid the splendid confusion of Greek monetary standards, that would combine a didrachm weighing 121·5 grains (7·87 grammes) maximum and a tetrobol or third in perfect agreement with it, with a tetradrachm and drachm representing a didrachm of 118·8 grains (7·70 grammes) maximum?

Miss Baldwin records a tetradrachm with the *astragalus* symbol (No. 54 *a*, fig. 6, of her paper) from the Ashburnham Sale Cat., Sotheby's, 1895, weighing 239·97 grains (15·55 grammes). If this weight could be relied upon it would somewhat weaken the above argument, as the resulting didrachm would be 119·98 grains (7·775 grammes). But since the four other known tetradrachms with symbols are all of considerably less weight, there seems to be some justification for doubting the accuracy of the catalogue.

Whether the coinage after the change was less plentiful or not than before cannot be stated with certainty, but there are signs that it was, at any rate for a time. We have no tetradrachms, for instance, with a single letter or monogram, and even those with symbols are excessively rare, while if the drachms

with letters, some of which are fairly common, occupied the place in the series assigned to them here, it would mean that there was a gap in the tetradrachm issues. There are also several issues of drachms and hemidrachms without letters of undoubtedly later date than the tetradrachm No. 32, though apparently contemporaries of the drachms with letters. Like the latter, these coins have no accompanying tetradrachms either. Their absence in both cases may be purely accidental of course, but it may mean, as suggested above, that the coinage was somewhat restricted for a short period before the revolt from Athens.

This particular phase of the coinage is represented on **Pl. III. 17–22** and **Pl. IV. 1–3**. The pieces there illustrated include, as will be observed, two bronze coins, and though it may seem revolutionary to suggest that bronze was coined at Chios as early as this, there is nothing inherently improbable about it. Bronze is known to have been struck at Athens during the archonship of Callias in 406 B.C., and, if M. Svoronos's theory with regard to the *κόλλυβοι*[56] is to be credited, it was introduced there at a much earlier date still. Camirus in Rhodes seems to have made use of it in its coinage considerably before the end of the fifth century (*B. M. Cat.: Caria, Rhodes, Camirus*, No. 15, 500–408 B.C.), and Samos also struck bronze of good style that is attributed to the beginning of the fourth century (*B. M. Cat.: Ionia, Samos*, Nos. 143–60).

The little bronze pieces that I am venturing to include in the present period are not well known, but they have everything to recommend their attribution

[56] *Journal Int. d'Arch. Num.*, 1912, pp. 123–60.

so far as style is concerned. The only doubtful point about them is the somewhat early appearance of a reverse type combined with punch-striking, at a time when anvil-striking was in force, and when the other coins, suggested as their contemporaries, still had conventionalized incuse reverses. The use of a new metal may be enough to account for this innovation. Moreover, the reverse of drachm No. 45 is so highly conventional that it almost amounts to a type, and yet it is an unmistakable contemporary, within a year or so, of the other drachms in its class whether with or without letters.

Though the definite attribution of these early bronze coins must remain an open question for the present, I think that there can be no gainsaying that they must at any rate follow the fortunes of the drachms and hemidrachms with which they are now grouped. Until the production of evidence tending to determine the date of the latter more exactly than I am able to do there seems no serious objection to the present arrangement.

The early tetradrachms and their divisions, so far as they are known to us, together with the apparently separate issues of drachms, hemidrachms, and early bronze, are the following:

32. *Obv.*—Sphinx of fully developed style seated l. on plain exergual line; wing curled in conventionalized manner; hair elegantly dressed on top of head; further foreleg outlined behind nearer. In front amphora [with ball at point], surmounted by bunch of grapes hanging perpendicularly. The whole on raised circular shield.

Rev.—Quartered incuse square, divided by narrow bars into shallow and irregularly shaped compartments; anvil-struck.

Æ. 23·50 mm. 237·6 grains (15·40 grammes). Chian tetradrachm. Boston Mus., U.S.A., ex Warren Coll., No. 1142, Regling Cat.

22·50 mm. 235·6 grains (15·27 grammes). Chian tetradrachm. Brit. Mus., No. 5, Cat. Ionia, Chios. [Pl. III. 10.]

33. Identical with preceding.

Æ. 14·00 mm. 58·2 grains (3·77 grammes). Chian drachm. Metr. Mus., New York, ex Ward Coll., No. 680, G. F. Hill's Cat. [Pl. III. 11.]

14·25 mm. 57·9 grains (3·75 grammes). Chian drachm. Berlin Cabinet ex Löbbecke Coll., 1906.

34. Similar to preceding, but reverse has broader bars.

Æ. 10·00 mm. 23·5 grains (1·52 grammes). Chian hemidrachm. My collection. [Pl. III. 12.]

35. *Obv.*—Similar to No. 32, except that Sphinx is drawn with the further breast showing, and a *dolphin*, head to l., in field r.

Rev.—Similar to No. 32, but reverse has broader bars, and is slightly more conventionalized.

Æ. $\frac{23·00}{20·50}$ mm. 236·5 grains (15·32 grammes). Chian tetradrachm. Sir H. Weber's collection. [Pl. III. 13.]

36. *Obv.*—Similar to No. 32, but of more careless execution, and with an *astragalus* in field r. The convex shield is also lower than in any of the preceding types.

Rev.—Quartered incuse square divided by rather broad bars into moderately deep compartments; anvil-struck.

Æ. $\frac{23·50}{22·00}$ mm. 236·9 grains (15·35 grammes). Chian tetradrachm. Munich Cabinet. [Pl. III. 14.]

37. *Obv.*—Similar to No. 35, but of softer style. The Sphinx is drawn to show both breasts in excellent perspective, and has the hair dressed more loosely than in No. 35, with a lock hanging on neck. The dolphin in field r. is inclined downwards, and the convex shield is even lower than in No. 36.

Rev.— Quartered incuse square evenly divided by rather narrow bars into large shallow compartments showing a finely and artificially granulated ground; anvil-struck.

Æ. $\frac{25{\cdot}00}{22{\cdot}00}$ mm. 232·2 grains (15·05 grammes). Chian tetradrachm. R. Jameson Coll. ex Coll. G. Duruflé, No. 1522, R. J.'s Cat. [**Pl. III. 15.**]

$\frac{25{\cdot}00}{22{\cdot}00}$ mm. 217·6 grains (14·10 grammes). Chian tetradrachm. Berlin Cabinet (worn).

38. *Obv.*—Similar to preceding, except that the Sphinx's breasts are not shown, and that the dolphin in field r. is here drawn head downwards.

Rev.—Identical with No. 36, allowing for difference in size.

Æ. $\frac{16{\cdot}00}{13{\cdot}50}$ mm. 55·9 grains (3·62 grammes). Chian drachm. Berlin Cabinet. [**Pl. III. 16.**]

38[a]. Similar to preceding, except that Sphinx has its hair dressed in the earlier manner of No. 33.

Æ. 13·50 mm. 52·5 grains (3·40 grammes). Chian drachm. Brit. Mus., No. 22, Cat. Ionia, Chios.

12·75 mm. 50·8 grains (3·29 grammes). Chian drachm. Brit. Mus., No. 23, Cat. Ionia, Chios.

39. *Obv.*—Sphinx of fully developed soft style seated l. [on plain exergual line]; wing curled in conventionalized manner; hair rolled, with one lock

hanging on neck; further foreleg faintly outlined behind nearer. In front amphora [with ball at point], surmounted by bunch of grapes hanging perpendicularly. The whole on slightly raised circular shield.

Rev.—Quartered incuse square divided by narrow bars into shallow compartments showing a finely granulated ground; anvil-struck.

Æ. 13·00 mm. 54·8 grains (3·55 grammes). Chian drachm. Cabinet de France, No. 4978. [Pl. III. 17.]

Rather rare.

39ª. Identical with preceding, except that reverse has a larger and more conventionalized incuse square showing an artificially granulated ground.

Æ. 13·75 mm. 56·2 grains (3·64 grammes). Chian drachm. Cabinet de France, No. 4979. [Pl. III. 18.]

14·00 mm. 54·8 grains (3·55 grammes). Chian drachm. Cabinet de France, No. 4976.

15·00 mm. 53·6 grains (3·47 grammes). Chian drachm. Vienna Cabinet.

Common.

40. Identical with preceding.

Æ. 12·00 mm. 27·6 grains (1·79 grammes). Chian hemidrachm. My collection. [Pl. III. 19.]

Rare.

41. Same as No. 39ª, except that in field r. the letter E is engraved above the Sphinx's tail.

Æ. 14·25 mm. 52·5 grains (3·40 grammes). Chian drachm. Cabinet de France, No. 4977. [Pl. III. 20.]

41ª. In field r. ⊙, and reverse has fine granulations like No. 39.

Æ. 14·00 mm. 57·4 grains (3·72 grammes). Chian drachm. Imhoof-Blumer's *Mon. Gr.*, No. 134.[57]

[57] This coin, which is now in Berlin, shows no trace of the X on reverse mentioned in Dr. Imhoof-Blumer's description.

13·50 mm. 51·7 grains (3·35 grammes). Chian drachm. My collection.

15·00 mm. 55·3 grains (3·58 grammes). Chian drachm. Prowe Coll., No. 1095, Egger's Cat., 1914.

41[b]. In field r. K, and reverse like No. 39.

Æ. 14·00 mm. 57·1 grains (3·705 grammes). Chian drachm. My collection ex Philipsen Coll.

13·50 mm. 54·3 grains (3·52 grammes). Chian drachm. Berlin Cabinet.

13·00 mm. 55·4 grains (3·59 grammes). Chian drachm. Hunterian Coll., No. 2.

41[c]. In field r. <.

Æ. 13·50 mm. 54·0 grains (3·498 grammes). Chian drachm. Sir H. Weber's Coll.

42. Similar to No. 38, but with monogram ⊰ in place of the dolphin. The first specimen described below has a crescent in one of the depressions of the incuse square. The incuse, though similar to that of No. 38, is of a later and more formal type.

Æ. 14·00 mm. 57·0 grains (3·695 grammes). Chian drachm. My collection.

13·50 mm. 55·5 grains (3·595 grammes). Chian drachm. Brit. Mus., No. 19, Cat. Ionia, Chios.[58]

13·00 mm. 57·0 grains (3·70 grammes). Chian drachm. Philipsen Coll., No. 2249, Hirsch's Cat., 1909.

42[a]. In field r. H.

Æ. 14·75 mm. 53·2 grains (3·45 grammes). Chian drachm. Cabinet de France, No. 4975. [Pl. III. 21.]

14·25 mm. 57·3 grains (3·71 grammes). Chian drachm. Berlin Cabinet.

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[58] In the *B. M. Cat.* this mon. is rendered ⊰, but I think that ⋈ is the correct reading.

13·50 mm. 54·0 grains (3·498 grammes). Chian drachm. Brit. Mus., No. 20, Cat. Ionia, Chios.

42[b]. Same as preceding with H, but reverse has granulated surface like No. 41.

Æ. 13·50 mm. 54·8 grains (3·55 grammes). Chian drachm. Berlin Cabinet.

Rare.

43. Same as No. 39[a], but in field r. ΔH.

Æ. 13·25 mm. 55·3 grains (3·583 grammes). Chian drachm. My collection.

Rare.

44. Same as preceding, but in field r. K.

Æ. 11·50 mm. 28·9 grains (1·873 grammes). Chian hemidrachm. Brit. Mus., No. 27, Cat. Ionia, Chios. [**Pl. III. 22.**]

Rare.

45. *Obv.*—Sphinx seated l., as on No. 39, but of larger size, and hair in thicker roll resembling a turban.

Rev.—Quartered incuse square divided by broad bars into very shallow compartments filled with coarse granulations; anvil-struck.

Æ. 14·00 mm. 56·0 grains (3·63 grammes). Chian drachm. Berlin Cabinet ex Imhoof-Blumer Coll., 1900. [**Pl. IV. 1.**]

46. *Obv.*—Sphinx similar to preceding seated l. on raised circular shield without exergual line. Before it bunch of grapes hanging perpendicularly.

Rev.—Amphora, with ball at point, in circle of large dots within incuse circle; punch-struck.

Æ. 11·00 mm. 20·8 grains (1·35 grammes). Berlin Cabinet ex Löbbecke Coll. Published *Z. für N.*, 1887, pp. 148–57, No. 18. [**Pl. IV. 2.**]

10·00 mm. 18·5 grains (1·20 grammes). Athens Cabinet.

10·25 mm. 17·4 grains (1·125 grammes). My collection ex Philipsen Coll.

Rather rare.

46ª. Same as preceding, but type to r.

Æ. 10·00 mm. 21·60 grains (1·40 grammes). Athens Cabinet.

47. Same as No. 46, but shield on obverse very slightly raised, no incuse circle on reverse, and on either side of amphora the letters A ≤.

Æ. 10·00 mm. 16·8 grains (1·09 grammes). Berlin Cabinet ex Löbbecke Coll. Published *Z. für N.*, 1887, pp. 148-57, No. 17. [Pl. IV. 3.]

11·25 mm. 15·1 grains (0·98 gramme). Athens Cabinet.

Very rare.

47ª. Same as preceding, but no dotted circle or letters on reverse.

Æ. 10·00 mm. Weight? Published *Z. für N.*, 1887, pp. 148–57, No. 19, ex Löbbecke Coll.

(A specimen at Paris has the letter ≤ (retrograde) to r. of amphora, but is in too bad condition for fuller description.)

No. 32. The chief points of this fine coin have already been noted. The two specimens quoted are from the same dies, and Miss Baldwin mentions a third from Brussels with different dies.

No. 33. There can be no doubt whatever that this drachm belongs to the same issue as the preceding. This cannot also be said with regard to the hemidrachm No. 34, though the form of its incuse and the absence of any symbol justify its position. The coin is unfortunately in bad condition, but it is the only specimen I have seen. Miss Baldwin illustrates another from Cambridge, No. 24, Pl. iv, which, although in better condition than mine, and undoubtedly belonging to this period, also cannot be said to represent the same issue as No. 33.

Nos. 35–7. The development of style in these three coins is very gradual and interesting, particularly as regards the raised shield of the obverse. The first is, I believe, unique. The second, thanks to Miss Baldwin's discovery of the Ashburnham specimen, referred to above because of its weight, is represented by two specimens. The third is also only known by the two specimens recorded here, the latter of which, from Berlin, is very much worn and has lost a good deal of weight. This type, No. 37, shows the first signs of the softer style and turban-like arrangement of the hair characteristic of the drachms assigned to the end of this period. The naturalistic manner, too, in which the bodily forms of the Sphinx are treated distinguish this issue from all other contemporary ones, and, as even the well-preserved specimen is of light weight for the period, it may fairly be regarded as the latest tetradrachm we have previous to those with names.

Nos. 38 and 38a. Judging from their reverses, which are curiously like that of tetradrachm No. 36, and the position of the dolphin, these drachms may belong to an earlier issue than the preceding. Their obverses present a duality of type similar to those of the drachms next to be described.

These are all the types at present known with symbols in the field. As has been observed above, the chief feature in which they, and all succeeding Chian issues, differ from the didrachms of the last period is the absence of the stopper from the amphora. This is an infallible test, although only such a small detail in itself, and is a strong argument, of the second order, in favour of including the electrum stater, No. 31,

among the coins that appeared before the change introducing the tetradrachms and their divisions.

We now come to the later drachms and hemidrachms with which no corresponding tetradrachms have so far been identified. It will at once appear from a comparison of **Pl. III. 11 and 12** with **Pl. III. 17 and 19**, that perfectly distinct issues of these anepigraphic coins were made, and that the latter form part of a subsequent and what looks like a separate phase of the coinage. The isolation suggested may, of course, be more apparent than real, and it seems just possible that the coins with letters only may have been issued in conjunction with the earliest tetradrachms bearing magistrates' names in full. If there are no tetradrachms, however, with single letters or monograms it is equally true that there are no drachms exactly corresponding to the two earliest of the three classes into which the tetradrachms bearing full names may be divided. From the list of these given below it will be seen that all the single letters and monograms known to us from the drachms and hemidrachms, except ⊬ and ⋦, can be matched with names from those set out below under the tetradrachms of class *α*. But the style of the two denominations does not agree in the manner that one would expect from pieces forming part of the same issue.[59] And if, in spite of

[59] To illustrate this compare **Pl. III. 10 and 11**, which undoubtedly belong to the same issue, with the combination now suggested, **Pl. III. 20** and **Pl. IV. 4.**

While the main points of difference between the latter, viz. their reverse types, and the single letter as opposed to the full name, suggest a later date for the tetradrachm and its fellows than for the drachm, it must be admitted that the Sphinx's head on the tetradrachms has an earlier look than that on the drachms on

this, we are to look upon the tetradrachms signed by Ἄσμενος and the rest of his class as the true contemporaries of the drachms with letters, what are we to think of the drachms without letters, Nos. 39, 39[a], and 45? These two groups cannot be separated from each other, nor, for the matter of that, can either of them be easily distinguished from the earlier of the two classes of drachms with names in full, though these must surely have been subsequent issues.

Among the bronze coins of Imperial times issues will be found without magistrates' names alternating with others on which names occur, down to the very last products of the mint under Gallienus. Can it be that some such custom as this, the meaning of which—even in Imperial times—is unknown to us, so far as I am aware, may also have been in force in the fifth century B.C.? It seems unlikely, though there are signs of the practice during the intervening centuries, in the case of small coins both of silver and bronze, to which attention will be drawn in due course.

In the matter of weights these coins stand on a distinctly lower level than the anepigraphic drachms that preceded them. From the table given below, with the object of demonstrating the gradual decline

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account of the former's resemblance to type No. 32. See remarks made below, under type No. 46, with reference to the similar characteristic that it presents.

Mr. G. F. Hill makes the suggestion, for which I am much obliged, that these single letters may be numerals. This seems highly probable, but the difficulty of the anepigraphic specimens remains, and that of determining the proper place in the series of the drachms in question is, if anything, increased. Judging from the highest surviving letter, Λ, the group, on this hypothesis, would have lasted twelve or eleven years, according as we assume Ϙ to have made part of the series or not.

in weight of all the silver coins of this and the following periods, it will be seen that this difference is in keeping with the result shown by comparing the two leading groups of tetradrachms. It is true that my type No. 33 is only represented by two specimens, but their average weight is fully maintained by Miss Baldwin's two additional specimens (No. 57, p. 25, of her paper, the first of these coins being a quite unusually heavy one).

It is very difficult even to guess at the probable order of succession of the issues under discussion from a consideration of style alone, every test that is applied leading to a different and contradictory result. As to their proper place in the series, I have been content to be guided by the sequence usually observed among Greek coins subject to the exceptions demanded by the anepigraphic types Nos. 39, 39ª, 40, and 45. It will be agreed, I think, that Nos. 39–40 are later types than No. 38, and that No. 45 is later than any of them. There is a good deal to be said in favour of grouping these drachms and hemidrachms with the tetradrachms of class *α*, detailed below. One obvious advantage arising therefrom would be the closer association that such an arrangement would bring about between them and the earlier class of drachms with names in full, type No. 50. In fact, the evidently near relationship of these two groups is perhaps the best argument for assigning a later date to types Nos. 39–45 than that suggested by their reverses.

It will be seen that Miss Baldwin unhesitatingly pronounces in favour of a fourth-century origin for these types (see pp. 47–8 and Pl. v. 11–31 of her paper), and she may be right, but I am leaving my arrangement unaltered since I have already described it as

only tentative. On the whole, however, the fresh evidence produced by Miss Baldwin is in favour of placing some at least of these doubtful coins more or less as I am doing. The two types that she illustrates on Pl. iv under Nos. 20–1 are clearly connected by their reverses, as she points out, with the anepigraphic drachms Nos. 17–19 on the one hand, and with the practically contemporary coins showing a dolphin, Nos. 22–3, on the other. But their obverses, in my opinion, as clearly indicate a connexion with these later drachms. The comparatively large head of the Sphinx on both coins, the turban-like arrangement of its hair on No. 20, which is characteristic of the doubtful group, and to which I have called attention under my type No. 37, and the loose locks of hair on No. 21 are all more suggestive of the drachms on Miss Baldwin's Pl. v than of those among which they are placed.

Nos. 39–40. The style of these coins calls for no further remark than has already been made. It is sufficient to observe that they show a type of Sphinx different both from that of the earlier anepigraphic coins and of the signed tetradrachms. I do not feel sure that the roughened ground in the incuse square of No. 39 is artificially produced, although Miss Baldwin (p. 47) makes no exception of it in tracing the development of the artificially granulated ground.

Attention may be drawn once more to the rarity of the hemidrachm No. 40, especially as it is one of the chief features that differentiate this group from the earlier of the two classes of drachms bearing names in full.

No. 41. Of the coins with single letters those with Θ and Κ are fairly common, but those with Ε and Λ are

rare. Miss Baldwin mentions a second specimen with Ε in addition to the one I have noted, but the specimen with Λ appears to be unique.

No. 42 is an earlier looking type than any of the others in this group, both on account of the Sphinx, which is very like the one seen on the drachm with the dolphin symbol, type No. 38, and of the incuse square. This reverse, like the tall Sphinx, is peculiar to the two issues with Ρ and Η, the former of which is rather rare.

No. 42[b]. This coin is remarkable as being the only case that I have met with of an obverse with monogram combined with the more usual granulated reverse of type No. 41, &c.

No. 43 seems to be unique. It is also interesting as exhibiting the commoner type of Sphinx on a coin with monogram. Miss Baldwin illustrates three others which had escaped me (Nos. 25–7 of her Pl. v).

No. 44. This hemidrachm, which also appears to be unique, is another case wherein the usual type of Sphinx appears in conjunction with a monogram.

The evidence of the last three types goes to prove that all the coins of this group are practically contemporaries, although I have not been able to detect any significant interchange of dies among them. Miss Baldwin only mentions one between her types 86–7, p. 30.

No. 45. The coin representing this type is the only one I have seen. It certainly has a later look, in my opinion, than any of those preceding it here, the crossbars on the reverse having all the appearance of being ready to receive a magistrate's name. It might, in fact, be a pattern for one of the later issues.

Before passing on to the bronze it is worth while noting here that the earliest case of plating that I have come across in the Chian series belongs to the present period. In the Berlin Cabinet there is a copper coin that evidently formed the core of one of those drachms without letters, possibly type No. 39ª. It measures $\frac{13{\cdot}00}{12{\cdot}00}$ mm. and weighs 39·7 grains (2·57 grammes).

Nos. 46–47ª. These early bronze coins were first published by Herr A. Löbbecke in an article which will be dealt with more fully later on. The author did not attempt to assign a date to this particular part of the find that he was describing, being content to settle the time when the hoard was probably deposited, but he remarks that some of the bronze was much worn and had evidently been in circulation for a long time. Though this observation refers more particularly to twenty-nine pieces that were unrecognizable in their details, it can also be taken to cover the coins included under these four types, as all the specimens I have seen, with the exception of that illustrated **Pl. IV. 2**, are more or less affected by wear. The coin chosen to illustrate type No. 47 [**Pl. IV. 3**] is quite the best I know. This type, No. 46, will be recognized as presenting, in its obverse, all the characteristics of the genuine fifth-century coinage near which it is placed. In fact, the wing of the Sphinx and the clean line formed by the back of its neck, free from the fourth-century curls, are more suggestive of this early period than the obverse types of any of the drachms and hemidrachms with which it is actually grouped. The turning of the Sphinx to right in the solitary specimen I am recording under No. 46ª is most unusual. With

the exception of the electrum staters showing this position, no other coin of Chios has a Sphinx to right till we reach the large bronze issues made in the second century B.C.

Nos. 47 and 47ª are evidently later than the others, and No. 47 may very possibly be a contemporary of the tetradrachm with the name Ἄσμενος, but as the next period introduces us to quite a new style of bronze coin, it is more consistent on the whole to class these types with the two preceding ones. No. 47ª seems to be the latest of all, judging by the disappearance of the dotted circle from its reverse; but if that be accepted it must be noted that we have here the first instance, since the drachms just discussed, of an issue without inscription following after one on which letters had been engraved. Unfortunately, I have been unable to trace any of the eighteen pieces described in Herr Löbbecke's paper under his No. 19, and I have consequently had nothing but his description to guide me in assigning its place to the type. Otherwise it seems possible that this type might furnish the link, at present missing, between No. 47 and the earliest of the small bronze coins with magistrates' names.

Although, with the appearance of a device on the reverse, the question of fixed or loose dies now arises, I have no ground for supposing that the dies of these bronze coins were fixed. Out of eleven pieces that I have been able to examine, two show the die-position ↑↑, and one ↑←, but, as all the rest are quite irregular, it is probable that these three cases are accidental. This conclusion is in favour of the early attribution of these coins, for it will be seen later that all the

remaining bronze issues of Chios were probably struck from fixed dies.

The weights of Nos. 46–7 are fairly constant in the region of 20·52 grains (1·33 grammes), which is roughly the weight maintained by the small bronze coins of the next period.

Period VII. 412–334 B.C.

It is a remarkable though perhaps not an exceptional fact that the seventy odd years following upon the defeat of the Athenians at Syracuse were, at one and the same time, some of the most disastrous in the annals of Chios in ancient times, and, throughout the greater part of their course, the richest from a numismatic point of view. There would be neither object nor profit in trying to follow here the various changes of fortune in the state after the introduction of the Spartan governor Pedaritos. Suffice it to say that between the oppression of the Spartans within, and the ravages of the Athenians along the coasts, the accumulated wealth of the two previous generations must have soon been dissipated. Each of the rival parties in the island identified itself with one of the belligerents, the oligarchs helping the Spartans to defend the citadel, and the democrats giving all possible encouragement to the Athenian raids. Almost every year saw a fresh revolution, as first one side and then the other gained the upper hand. Finally, after the crowning defeat of Aegospotami, when the last hopes of the democrats sank with the Athenian ships, and the oligarchic captains were being honoured by statues at Delphi,[60] all civic independence seems to

[60] Pausanias x. 99.

have been destroyed for a time. The names of the Chian leaders, as recorded by Pausanias, were Astykrates, Kephisokles, Hermophantos, and Hikesios. Only the last three are mentioned as a rule, and, as will appear below, two of these have also been preserved on the coinage. In establishing one of his decarchies Lysander effectually stifled both local parties, and the harmosts who followed him inaugurated a reign of terror.

Chios now shared in the misfortunes that resulted from Spartan rule all over the Aegean, and fell so low that she even lost her fleet.[61] Things improved a little after the victory of Conon, but the peace of Antalcidas, and the restoration of autonomy, only meant weakness for the impoverished state. The consequence was that the island became the prey of every power that arose during the following years, and passed successively under the dominion of Spartans, Athenians, and Thebans. Then came the short-lived thalassocracy of the Carian princes, and the complete subjugation of Chios, Rhodes, and Cos by Hidrieus and Pixodarus. This occurred in 345 B.C., but in 340 Athens once more became the dominant force in Ionia. There must now have been some return again of prosperity in Chios, for we hear of her people paying a subsidy to Athens to ensure the safety of her merchants at sea.[62] She certainly seems to have been able to re-establish a fleet, since Athenian and Chian ships are known to have fought side by side at Byzantium against Philip of Macedon.

But the recovery was only temporary. The expedition of Alexander threw everything into the melting-

[61] Isocrates, *De Pace*, 98.

[62] Demosthenes, *De Chersoneso*, 24.

pot once more, and faction raged more wildly than ever. Torn between Macedonian and Persian, and later by the rivalries of the Diadochi, it is a wonder that any trace of civilization remained when peace was at last secured under the Ptolemies.

It is worth while recalling the fact, on account of the names concerned, that, when the approach of Alexander's army was announced, Memnon persuaded the Chians to side with Darius, and the leaders of the day threw open their gates to a Persian garrison. These men were Apollonides, Athenagoras, and Phesinos. All three names are to be found on the coins of this period, and it seems justifiable to suppose that they represent these very men, though during earlier terms of office.

The only local artists belonging to the fourth century, whose names have come down to us, are the sculptors Sostratus and his son Pantias. The former name occurs on one of the drachms of the present period, but the owner can hardly have been the sculptor, as the latter only flourished about 320 B.C. Another name, borne by a Chian of note, which appears on the coinage of this century, is that of Theodorus, the Stoic philosopher, but his exact date is uncertain.

Although the silver issues which chiefly characterize it probably ceased some years previously, the Macedonian occupation makes a suitable ending for this period. This is because the bronze issues which, for reasons given below, can safely be assumed to have continued until the date of that occurrence, if not beyond it, are so closely bound up with the silver ones that it is best to preserve them all in the same category.

The coins now to be considered are distinguished

by two remarkable facts. The first is the references made to them by Thucydides and Xenophon in passages that have frequently been quoted and discussed. The second is that one of the very few finds of Chian coins, that have been scientifically described, covers practically the whole period. It seems hardly necessary to go over the ground of controversy regarding the two classic references just mentioned. There can no longer be any doubt that the expressions used both by Thucydides (viii. 101) and Xenophon (*Hell.* i. 6. 12) indicate the Chian tetradrachms of *circa* 411 and 406 B.C. The τεσσερακοστὴ Χία of the former, and the ἐκ Χίου πενταδραχμία of the latter, both render certain fixed sums of Chian money in terms of the Aeginetic currency used by the inhabitants of the Peloponnesus.[63]

The find in question was made near the village of Pityos, in the northern plain of Chios, and was published, several years afterwards, by Herr A. Löbbecke in *Zeit. für Num.*, 1887, pp. 148–57. The hoard comprised 50 silver and 175 bronze coins of different mints. Among the former were 2 drachms of Pixodarus of Caria in nearly mint state, 11 Chian drachms with-

[63] The expression τεσσερακοστὴ Χία has been recognized (Head, *Hist. Num.*, i, p. 513) as the fortieth part of the Aeginetic mina, which, as we have seen, would be the equivalent of the contemporary Chian tetradrachm—9,600 grains or 622 grammes ÷ 40 = 240 grains or 15·55 grammes. The πενταδραχμία, about which more doubt has been expressed, is now admitted to be (Head, *ibid.*, and P. Gardner, *J. H. S.*, 1913, p. 162) not any particular coin, but a method of describing two Chian tetradrachms, i.e. a five-Aeginetic-drachms'-worth, since 96 grains or 6·22 grammes × 5 = 480 grains or 31·10 grammes. The Guernseyman of to-day, who uses French silver coins, but thinks in values of a local currency with English names, does practically the same thing as the above when he calls a two-franc piece a twenty-penny. He is putting a foreign denomination into terms of his own money as succinctly as possible.

out letters or symbols, 4 hemidrachms of the same class, and 4 Chian drachms bearing magistrates' names. Out of the Chian pieces concerned no record appears to have been kept of the anepigraphic drachms and hemidrachms, and I have been unable to trace them, but details of the drachms with names will be found below. There were other silver coins in the hoard of great individual interest, but without any special connexion with Chian chronology. The bronze included 149 Chian pieces, 41 of which belonged to the types described under Nos. 46–47[a], and 29 were in an unrecognizable condition, as already stated. The rest, all with magistrates' names, and mostly in excellent preservation, will be found noted under types Nos. 53 and 54.

The main lesson to be derived from the find is that the vase containing the coins was probably hidden during the troublous years of the Macedonian occupation. The two drachms of Pixodarus, being in nearly mint state, afford an unimpeachable fixed point, as these things go, from which to calculate. The date of Pixodarus's reign was 341–335 B.C., and the coins of the find, therefore, cannot be much later than 334 B.C., which is the limit taken for this period. Herr Löbbecke's paper does not appear to have received the attention that it deserved, for one sees the Chian bronze coins to be described below assigned to any but their correct date in most collections.

Although there is no doubt, then, that all these bronze coins with names were issued some time during the first three quarters of the fourth century B.C., the date claimed for types Nos. 46–47[a] may appear excessively early in view of their presence in this find.

The fact that they formed part of a peasant's hoard some seventy years after they are supposed to have been struck might be advanced as an argument against such an attribution, in spite of their poor condition. But since the hoard also contained anepigraphic drachms and hemidrachms, belonging presumably to the types described under Nos. 39–40, this difficulty is considerably reduced.

Just as we are uncertain as to the exact date down to which the issues of tetradrachms and drachms with names were continued, so we cannot tell precisely when they began. The revolt from Athens has generally been accepted as the time, and it certainly provides us with a most plausible occasion for their introduction. The revival of the aristocratic party under Alcibiades seems to demand some such recognition, and in any case the date is a convenient landmark.

We have already seen the difficulties that attend the exact arrangement of the coins with symbols, letters, monograms, &c. There are not very many of these issues extant so far. My list, which, as I have explained, is by no means complete, comprises some 16 or 17 issues between types Nos. 35–45. Still, at present we cannot reckon with many more, even allowing for types that I have not had an opportunity of examining. If, as I have decided to place them, the drachms and hemidrachms with letters, &c., came between tetradrachm No. 37, supposing that it was the last of its class, and the first coin with a name in full, well and good. Between *circa* 435 B.C., the date suggested for the first tetradrachm issue, and 412 B.C. there are about twenty-three years, and, allowing for lost and missing types, these 16–17 issues may be

looked upon as filling the gap on the assumption that there was a fresh issue every year. But if the doubtful coins are to accompany the early tetradrachms with names, then the latter might be moved up some ten years or so. That, I think, is as far as it is prudent to go in trying to determine this question.

In proposing ten years only, instead of the whole interval available between the dates named, I am making a concession to my belief that, even if we have to sacrifice the doubtful drachms and hemidrachms, there was still a break in the tetradrachm issues. This I base chiefly upon the fact that there is a significant inferiority in the weights of even the earliest tetradrachms with names as compared with those without them. The only exception is type No. 37, and I am strongly inclined to think that, if it should be ultimately decided to banish the doubtful drachms and hemidrachms to the fourth century, this tetradrachm ought to accompany them. Then the general level of the work expended on the signed tetradrachms is, on the whole, inferior to that exhibited by types Nos. 32, 35, and even 37. The average relief of the shields, for instance, among coins with names is much lower than among those without. Here again No. 37 is an exception. Another point, and that not the least important, is that punch-striking seems to have been resumed with the introduction of names on the reverse. Whatever opinion may be held as to the accuracy of description conveyed by the terms anvil- and punch-struck, there can, I think, be no doubt but that a totally different method was employed in the striking of coins like Nos. 10–16 and 17–22, **Pl. III**, from that used for Nos. 4–7, **Pl. IV**. It has already been

pointed out that the early bronze pieces also follow the punch-striking method.

The silver coinage of this period seems to have consisted of tetradrachms and drachms only, no hemidrachms with magistrates' names having so far been discovered. We of course do not know whether drachms and bronze coins accompanied the issue of every tetradrachm or not, or whether the smaller coins were sometimes struck without tetradrachms, though it is highly probable that the material we possess representing these issues is only fragmentary in spite of its plentifulness.

The style of the coins deteriorates steadily throughout the period, the most noticeable failing being the gradual disappearance of the convex shield on the obverse. The last form it assumes is a plain ring border encircling the type [Pl. IV. 7]. The forelegs and paws of the Sphinx become coarser, but its hair is more elaborately arranged. Instead of the trimly dressed heads of Pl. III. 10 and Pl. IV. 4–5, we have a more ornate style in which one or two curls hang down behind, concealing the line of the neck, as in Pl. IV. 6, 7, 11. The first appearance of this fashion has already been noted under type No. 37, and it seems later to have served as a model for some of the best work done under the early Roman Emperors.

The evidence with regard to die-positions in the case of these tetradrachms and drachms is conflicting. On the whole I think that it is best to assume that the dies of these coins were not fixed, at any rate as far as regards the two earlier classes.

The weights show a regular decline, as may be seen from the following averages:

Early tetradrachms without names, from last period
(4 specimens[64]). 236·73 grains (15·34 grammes).
Tetradrachms with names, classes *α* and *β*
(20 specimens). 229·17 grains (14·85 grammes).
Late tetradrachms with names, class *γ*
(17 specimens). 207·56 grains (13·45 grammes).
Early drachms without names or symbols, from last period
(2 specimens). 58·02 grains (3·76 grammes).
Early drachms with symbols, letters, &c., from last period
(31 specimens[65]). 54·80 grains (3·55 grammes).
Drachms with names, class *β*
(38 specimens). 55·40 grains (3·59 grammes).
Late drachms with names, class *γ*
(9 specimens). 52·16 grains (3·38 grammes).

The bronze coinage, of which there are two main types, shows a greater break with previous traditions than any other group that we have studied so far. There is no trace upon any of the issues of the raised convex shield on the obverse. The introduction of the word XIOΣ, too, is a striking innovation, notwithstanding its exceptional occurrence on some of the early didrachms. Of these two main types the smaller-sized pieces would seem to have come first, and their descent from the bronze coins ascribed to the last period is fairly evident, though perhaps not quite direct.[66] The bunch of grapes on the obverse only appears on a few issues, but it is impossible to say whether these came first or not.

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[64] The two specimens of type No. 37 are not included among these, as both of them are very much below the average weight of their class, a difference that is not entirely due to wear, as has already been remarked.

[65] These 31 specimens do not include No. 26, *Brit. Mus.: Cat. Ionia, Chios*, as it is so very much worn.

[66] See remarks above under type No. 47[a]. Everything points to these early bronze issues—types Nos. 46–47[a]—having been kept in circulation for an unusually long time.

In the larger pieces the bunch of grapes is not seen at all, but its place is taken by a vine-wreath surrounding the reverse type, which is clearly a development of that seen on the silver coins of this period. These coins are divisible into two classes distinguished by the cross on the reverse. In the earlier one it is narrow and raised, somewhat like that on the tetradrachm [Pl. IV. 7], but in the later it is wider and flush with the rest of the design as on the majority of the tetradrachms belonging to class γ. I have not yet seen a specimen of these later issues in sufficiently good condition to say whether the obverse type was also modified or not. It looks as if these large bronze pieces were introduced after the mint had ceased coining silver, the issue of the small ones being continued concurrently so as to provide a lower denomination. Although the weights are not more carefully regulated than in any other contemporary Greek mint, these two bronze types appear to have been struck with the object of maintaining the same relation between them as existed between the tetradrachms and drachms. The large coins weigh about 61·73 grains (4·00 grammes), and the small ones—evidently following the standard established for types Nos. 46–7—from 15·43 to 23·15 grains (1 to 1·50 grammes). This practice of striking two sizes of bronze coins evidently found favour at Chios, as will appear from the subsequent issues.

We may conclude that the pieces of larger module were first issued between 350 and 340 B.C. None of the names so far found upon them coincides with those known from either tetradrachms or drachms, although the style of the Sphinx—in the earlier class at least—

will be seen to be almost exactly the same as that of the latest tetradrachms. No specimen of the later class occurred in the Pityos find mentioned above, but, as two of the small coins with names common to both series did so occur, we are justified in including these large bronze pieces in the present period. Otherwise it might have been preferable to assign them to a date after the Macedonian occupation.

The style of the small coins is even better than that of the large, as would be expected, the preservation of the bunch of grapes and of the incuse circle on certain issues fully bearing out the suggestion that they were the first to be struck. In them, as will be seen, we meet with four names already noted on tetradrachms or drachms, and it seems fair to assume that the same magistrate is represented.

The dies of all these bronze coins seem to have been fixed, and their positions are given accordingly in the following descriptions by means of ↑↑.

The tetradrachms, drachms, and bronze coins assigned to this period are as follows:

Class *a*.

48. *Obv.*—Sphinx of fully developed style seated l. on plain exergual line, sometimes missing; wing curled in conventionalized manner; hair dressed on top of head, but in more elaborate fashion than No. 32; further foreleg outlined behind nearer. In front amphora, with ball at point, surmounted by bunch of grapes hanging perpendicularly. The whole on shallow raised circular shield.

Rev.—Striated incuse square, quartered by bands of varying width, on one of which appears magistrate's name; punch-struck.

Æ. ΑΞΜΕΝΟΞ *Rev.* Striations vertical, and broken; broad cross.

22·50 mm. 230·25 grains (14·92 grammes). Chian tetradrachm. Cabinet de France, No. 4983. [Pl. IV. 4.]

ΕΡΜΑΡΧΟΣ *Rev.* Striations horizontal, and broken; broad cross (1). Striations vertical, and broken (2).

22·50 mm. 232·1 grains (15·04 grammes). Chian tetradrachm. Cabinet de France, No. 2001, Coll. Waddington.

22·00 mm. 232·1 grains (15·04 grammes). Chian tetradrachm. Berlin Cabinet.

ΘΕΟΔΩΡΟΣ *Rev.* Striations horizontal, and broken; narrow cross.

23·75 mm. 230·6 grains (14·94 grammes). Chian tetradrachm. Cabinet de France, No. 2002, Coll. Waddington.

ΘΗΡΩΝ *Rev.* Striations horizontal, and broken; broad cross.

21·75 mm. 231·9 grains (15·03 grammes). Chian tetradrachm. Cabinet de France, No. 2003, Coll. Waddington.

ΚΑΛΛΙΚΛΗΣ *Rev.* Striations vertical, and regular; narrow cross.

21·25 mm. 235·1 grains (15·234 grammes). Chian tetradrachm. Brit. Mus., No. 31, Cat. Ionia, Chios.

22·50 mm. 218·5 grains (14·158 grammes). Chian tetradrachm. No. 698, Sotheby's Cat., 1909, of Sherman Benson Coll. ex Rhoussopoulos Coll. (the weight according to cat., but it seems light considering the condition of the coin).

ΛΕΩΧΟΣ *Rev.* Striations horizontal, and broken; narrow cross.

24·00 mm. 230·6 grains (14·94 grammes). Chian tetradrachm. Vienna Cabinet. Published *Num. Zeit.*, 1908, p. 130.

ΠΟΣΕΙΔΙΠΠΟΣ *Rev.* Striations vertical, and broken; narrow cross raised, and tapering inwards (1). Striations horizontal, and broken; narrow cross (2).

23·00 mm. 229·5 grains (14·87 grammes). Chian tetradrachm. Brit. Mus., No. 33, Cat. Ionia, Chios.

25·00 mm. 230·1 grains (14·91 grammes). Chian tetradrachm. Cabinet de France, No. 2004, Coll. Waddington. [Pl. IV. 5.]

Class β.

49. *Obv.*—Sphinx, &c., similar to preceding, except that the shield is very shallow, practically non-existent in some specimens, and replaced by a plain ring border in others; and that the Sphinx's hair is invariably dressed so as to show loose curls on the neck behind.

Rev.—Similar to preceding, except that the striations of the incuse square tend to become regular.

Æ. AMΦIMHΔHΣ *Rev.* Striations horizontal, and broken; broad cross.

23·00 mm. 213·6 grains (13·84 grammes). Chian tetradrachm. No. 2247 of Hirsch's Cat., 1909, of Philipsen Coll. (condition bad, and weight no doubt affected by oxidization).

APIΣTHΣ *Obv.* Type in ring border. *Rev.* Striations horizontal, and broken; narrow cross.

24·00 mm. 235·0 grains (15·23 grammes). Chian tetradrachm. Berlin Cabinet.

BAΣIΛEIΔHΣ *Rev.* Striations horizontal, and broken; broad cross (1). Striations vertical, and broken (2).

23·00 mm. 232·0 grains (15·033 grammes). Chian tetradrachm. Brit. Mus., No. 28, Cat. Ionia, Chios. [Pl. IV. 6.]

25·00 mm. 235·2 grains (15·24 grammes). Chian tetradrachm. Berlin Cabinet.

EOPYNOMOΣ *Obv.* Type in ring border. *Rev.* Striations vertical, and regular; broad cross.

23·50 mm. 232·9 grains (15·09 grammes). Chian tetradrachm. Vienna Cabinet. Published *Revue Suisse*, 1905, p. 239.

ΕΡΜΟΦΑΝΤΟΣ *Rev.* Striations horizontal, and regular; broad cross (1). Striations vertical, and regular; broad cross (2).

23·25 mm. 233·95 grains (15·16 grammes). Chian tetradrachm. Vienna Cabinet.

23·00 mm. 233·95 grains (15·16 grammes). Chian tetradrachm. Berlin Cabinet.

ΗΡΑΓΟΡΗΣ *Rev.* Striations vertical, and regular; broad cross.

22·50 mm. 218·5 grains (14·158 grammes). Chian tetradrachm. Brit. Mus., No. 30, Cat. Ionia, Chios.

ΙΠΠΙΗΣ *Rev.* Striations broken; narrow cross, raised, and tapering inwards.

24·00 mm. 218·1 grains (14·126 grammes). Chian tetradrachm. Hunterian Coll., No. 4.

ΦΟΙΝΙΞ *Obv.* Type in ring border. *Rev.* Striations vertical, and broken; narrow cross, raised, and tapering inwards.

23·75 mm. 231·5 grains (15·00 grammes). Chian tetradrachm. Cabinet de France, No. 2005, Coll. Waddington. [Pl. IV. 7.]

Class *β*.

50. *Obv.*—Sphinx of fully developed style seated l., generally without exergual line; wing curled in conventionalized manner; hair rolled, with loose curls hanging on neck behind; only one foreleg showing as a rule. In front amphora, with ball at point, surmounted by bunch of grapes hanging perpendicularly. The whole on shallow raised circular shield.

Rev.—Granulated incuse square quartered by bands of varying width, on one of which appears magistrate's name; punch-struck (?).

Æ. ΑΡΤΕΜΩΝ *Rev.* Coarse granulations; narrow cross.

15·00 mm. 54·3 grains (3·52 grammes). Chian drachm. Cabinet de France, No. 2006, Coll. Waddington.

15·00 mm. 56·3 grains (3·65 grammes). Chian drachm. Berlin Cabinet.

ΓΕΡΩΣ *Rev.* Fine granulations; broad cross.

14·00 mm. 54·3 grains (3·52 grammes). Chian drachm. Berlin Cabinet. Published *Revue Suisse*, 1895, p. 306.

15·50 mm. 56·9 grains (3·69 grammes). Chian drachm. Boston Mus., U.S.A., No. 493 of Page Perkins Coll.

ΕΠΑΙΝΕ[ΤΟΣ] *Rev.* Fine granulations; broad cross.

13·50 mm. 56·9 grains (3·69 grammes). Chian drachm. Brit. Mus., No. 36, Cat. Ionia, Chios.

14·00 mm. 56·0 grains (3·63 grammes). Chian drachm. Coll. Dr. Imhoof-Blumer, 1912. [Pl. IV. 10.]

ΘΕΟΤΤΙΣ *Rev.* Coarse granulations; narrow cross.

15·50 mm. 54·6 grains (3·54 grammes). Chian drachm. Cabinet de France, No. 2007, Coll. Waddington. [Pl. IV. 8.]

15·00 mm. 57·6 grains (3·73 grammes). Chian drachm. Berlin Cabinet, ex Löbbecke Coll. Published *Z. für N.*, 1887, pp. 148–57, No. 3. Name on No. 4 of A. Löbbecke's paper rendered ΘΕΥΤΤΙ[Σ]. Five other specimens known, all with ΘΕΟΤΤΙΣ.

ΙΠΠΙΑΣ *Rev.* Coarse granulations; narrow cross.

13·50 mm. 53·8 grains (3·49 grammes). Chian drachm. Brit. Mus., No. 37, Cat. Ionia, Chios.

14·75 mm. 54·3 grains (3·52 grammes). Chian drachm. Cabinet de France, No. 4991. [Pl. IV. 9.]

ΙΞΧΙΜΑ[ΧΟΣ?] *Rev.* Coarse granulations; broad cross.

15·00 mm. 56·3 grains (3·65 grammes). Chian drachm. Berlin Cabinet. Published *Kleinasiat. Münz.*, vol. i, p. 102.

15·50 mm. 57·1 grains (3·70 grammes). Chian drachm. Coll. B. Yakountchikoff.

ΣΩΣΤΡΑ[ΤΟΣ] *Rev.* Coarse granulations; broad cross.

15·00 mm. 54·4 grains (3·524 grammes). Chian drachm. Brit. Mus., No. 38, Cat. Ionia, Chios.

15·00 mm. 55·9 grains (3·62 grammes). Chian drachm. Cabinet de France, No. 4992.

ΦΑΝΟΚΛΗΣ *Rev.* Fine granulations; broad cross.

14·00 mm. 57·8 grains (3·74 grammes). Chian drachm. Berlin Cabinet ex Löbbecke Coll. Published *Z. für N.*, 1887, pp. 148–57, No. 5.

14·00 mm. 57·6 grains (3·73 grammes). Chian drachm. Berlin Cabinet ex Löbbecke Coll. Published *Z. für N.*, 1887, pp. 148–57, No. 6.

The final Ξ, though lacking on these Berlin specimens, is supplied by Egger's Sale Cat., of Prowe Coll., No. 1098, May, 1914.

ΦΗΣΙΝΟΣ *Rev.* Coarse granulations; broad cross.

14·50 mm. 53·5 grains (3·47 grammes). Chia drachm. Leake Coll., Fitzwilliam Mus., Cambridge.

15·00 mm. 57·6 grains (3·73 grammes). Chian drachm. Coll. Sir H. Weber.

Class γ.

51. *Obv.*—Sphinx of fully developed style seated l. on plain exergual line; wing curled in conventionalized manner, and the feathers indicated by coarser lines than before; hair dressed to show chignon as well as side roll with curls hanging down at back of neck; only one foreleg showing of very massive proportions. In front amphora, with pear-shaped tip, surmounted by bunch of grapes hanging perpendicularly. The whole, occasionally, in plain ring border.

Rev.—Striated incuse square quartered by broad bands, on one of which magistrate's name; punch-struck.

R. ΔΗΜΟΚΡΑΤΗΣ *Rev.* Striations vertical, and regular.

22·50 mm. 227·6 grains (14·75 grammes). Chian tetradrachm. Brit. Mus., No. 29, Cat. Ionia, Chios.

ΗΡΙΔΑΝΟΣ *Rev.* Striations horizontal, and regular (1). Striations vertical, wide, and regular (2). Has a coarsely granulated ground (3).

20·00 mm. 211·6 grains (13·71 grammes). Chian tetradrachm. Cabinet de France, No. 4985. [Pl. IV. 11.]

20·50 mm. 205·3 grains (13·30 grammes). Chian tetradrachm. McClean Coll., Fitzwilliam Mus., Cambridge.

20·25 mm. 199·7 grains (12·94 grammes). Chian tetradrachm. My collection ex Prowe Coll., No. 1096, Egger's Cat., 1914.

Not rare.

ΚΗΦΙΣΟΚΡΙΤ[ΟΣ] *Rev.* Striations vertical, wide, and regular (1). *Obv.* Type in ring border. *Rev.* Striations horizontal, and regular (2). *Obv.* Type in ring border. *Rev.* Striations vertical, and broken; raised cross (3).

21·25 mm. 202·3 grains (13·11 grammes). Chian tetradrachm. Brit. Mus., No. 32, Cat. Ionia, Chios.

23·00 mm. 209·9 grains (13·61 grammes). Chian tetradrachm. Hunterian Coll., No. 5.

21·50 mm. 208·5 grains (13·51 grammes). Chian tetradrachm. Berlin Cabinet.

Not rare.

ΞΚΥΜΝΟΣ *Rev.* Striations vertical, and regular. *Obv.* Type in ring border.

22·25 mm. 212·4 grains (13·76 grammes). Chian tetradrachm. Cabinet de France, No. 4988.

Class γ.

52. *Obv.*—Identical with preceding, but no plain ring border, and exergual line sometimes missing.

Rev.—As preceding.

Æ. ΗΡΙΔΑΝΟΣ *Rev.* Striations vertical, wide, and regular.

16·50 mm. 52·5 grains (3·40 grammes). Chian drachm. Brit. Mus., No. 34, Cat. Ionia, Chios.

14·50 mm. 51·0 grains (3·30 grammes). Chian drachm. Vienna Cabinet.

ΚΗΦΙΣΟΚΡΙΤΟΣ *Rev.* Striations vertical, and regular.

14·00 mm. 53·2 grains (3·45 grammes). Chian drachm. Cabinet de France, No. 4987. [Pl. IV. 12.]

14·00 mm. 52·5 grains (3·40 grammes). Chian drachm. Coll. Sir H. Weber.

ΣΟΝΥΜΥΚΣ *Rev.* Striations vertical, and regular; raised cross (1).

ΣΚΥΜΝΟΣ *Rev.* Striations horizontal, wide, and regular (2).

13·50 mm. 55·2 grains (3·58 grammes). Chian drachm. Brit. Mus., No. 35, Cat. Ionia, Chios.

14·50 mm. 51·0 grains (3·30 grammes). Chian drachm. McClean Coll., Fitzwilliam Mus., Cambridge. [Pl. IV. 13.]

Mionnet's *Médailles grecques*, vol. vi, p. 389, No. 6, records a tetradrachm, measuring 22·00 mm., with magistrate's name ΛΥΚΙΔΕΟΣ. I have been unable to trace this coin, and therefore cannot assign it to its class among those given above. The form of the name is suspicious, and suggests a mutilated original.

53. *Obv.*—Sphinx similar to type No. 50—especially as regards the wing—seated l., with or without a plain exergual line. In front of it, sometimes, a bunch of grapes.

Rev.—Amphora, with pear-shaped tip, having on the one side of it a magistrate's name, and on the other ΧΙΟΣ or ΧΙΟΣ. Incuse circle of varying depth, and punch-struck, but often absent.

Æ. ΑΘΗΝΑ[ΓΟΡΑΣ] *Obv.* Grapes. *Rev.* Slightly concave field. ΧΙΟΣ.

↑↑ 11·00 mm. 18·7 grains (1·21 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 7.

↑↑ 13·00 mm. 17·6 grains (1·14 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 7.

↑↓ 11·25 mm. 21·5 grains (1·39 grammes). My collection ex Lambros Coll., No. 743 (part), Hirsch's Cat., 1910.

ΑΜΦΙΛΟ --- *Obv.* No grapes. *Rev.* Slightly concave field. ΧΙΟΣ.

↑↓ 12·00 mm. Weight? In private hands at Chios.

ΑΠΟΛΛΩ[ΝΙΔΗΣ] *Obv.* Grapes. *Rev.* ΧΙΟΣ.

↑↑ 11·00 mm. 18·5 grains (1·20 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 8.

↑↑ 12·00 mm. 19·6 grains (1·27 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 8.

↑↓ 10·50 mm. Weight? Collection in Public Library at Chios.

ΑΣΜΕΝ[ΟΣ] *Obv.* No grapes. Small Sphinx. *Rev.* Concave field. ΧΙΟΣ.

↑↗[67] 10·00 mm. 13·12 grains (0·85 gramme). Athens Cabinet.

ΙΗΝΩΝ *Obv.* No grapes. *Rev.* No incuse. ΧΙΟΣ.

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[67] Whenever a coin fails to show either the upright ↑, inverted ↓, or transverse ←→, positions in its reverse, I am representing it thus ↗. Any positions but those mentioned probably mean that the dies were either not fixed at all or had become displaced.

↑↑ 11·00 mm. 19·2 grains (1·24 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 9.

↑↑ 12·00 mm. 21·6 grains (1·40 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 9. [Pl. IV. 16.]

ΗΓΗΣ[ΙΠΠΟΣ] *Obv.* No grapes. *Rev.* Slightly concave field. ΧΙΟΣ.

↑↑ 12·00 mm. 22·8 grains (1·48 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 10.

↑↑ 12·50 mm. 18·9 grains (1·22 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 10.

Η]ΡΙΔΑΝ[ΟΣ] *Obv.* No grapes. Small Sphinx. *Rev.* Shallow incuse circle. ΧΙΟΣ.

↑↑ 9·75 mm. 19·6 grains (1·27 grammes). Brit. Mus., No. 40, Cat. Ionia, Chios.

[Pl. IV. 15.]

ΙΠΠΙΑΣ *Obv.* grapes. *Rev.* ΧΙΟΣ.

↑↑ 11·50 mm. 19·3 grains (1·25 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 11.

↑↑ 12·00 mm. 19·9 grains (1·29 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 11.

ΙΣΧΙΜΑ[ΧΟΣ?] *Obv.* grapes. *Rev.* Incuse circle. ΧΙΟΣ.

↑↑ 11·50 mm. 23·15 grains (1·50 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 12.

↑↑ 11·50 mm. 21·1 grains (1·37 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 12.

↑↑ 11·50 mm. 15·1 grains (0·978 gramme). Brit. Mus. Collection, uncatalogued.

[Pl. IV. 14.]

ΛΥΚΟΡ[ΜΑΣ] or [ΤΑΣ] *Obv.* No grapes. *Rev.* No incuse. ΧΙΟΣ.

↑↑ 11·50 mm. 18·9 grains (1·22 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 13.

↑↑ 12·00 mm. 18·5 grains (1·20 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 13.

ΠΕΙΣΙ - - - *Obv.* No grapes. *Rev.* No incuse. ΧΙΟΣ. (Löbbecke renders name ΠΕΞΙ, but the first Ι is certain.)

↑↑ 11·25 mm. 20·5 grains (1·33 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 14.

↑↑ 11·00 mm. 18·1 grains (1·17 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 14.

↑↑ 11·50 mm. 17·7 grains (1·15 grammes). Athens Cabinet.

ΦΙΛΤΗΞ *Obv.* No grapes. *Rev.* No incuse (1 and 3). Incuse circle (2). ΧΙΟΞ.

↑← 11·00 mm. 29·6 grains (1·92 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 15.

↑↑ 12·00 mm. 21·6 grains (1·40 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 15.

↑↑ 11·75 mm. 12·4 grains (0·80 gramme). My collection.

ΦΙΤΤΑΚ[ΟΞ] *Obv.* No grapes. Small Sphinx. *Rev.* No incuse (1 and 2). Shallow incuse circle (3). ΧΙΟΞ.

↑↑ 11·00 mm. 18·5 grains (1·20 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 16.

↑↑ 10·25 mm. 21·6 grains (1·40 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 16.

↑↑ 10·50 mm. 22·4 grains (1·45 grammes). Athens Cabinet. (The Κ of name is clear on this specimen, though Löbbecke read one as Ξ.)

53[a]. *Obv.*—Same as preceding.

Rev.—Amphora between bunch of grapes l. and XIOΣ r. No magistrate's name. No incuse circle.

↑↑ Æ. 9·50 mm. In private hands at Chios.

54. *Obv.*—Sphinx similar to type No. 51, seated l. on plain exergual line.

Rev.—Vine-wreath tied below, within which two narrow raised bands crosswise, on the horizontal one magistrate's name, and on the vertical one XIOΣ.

Æ. ΑΓΓΕ - - -

↑↑ 17·00 mm. 56·9 grains (3·69 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 20. [Pl. IV. 17.]

↑↑ 17·00 mm. 62·8 grains (4·07 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 20.

IKEΣIOΣ

↑↑ 17·00 mm. 56·5 grains (3·66 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 21.

↑↑ 16·00 mm. 61·3 grains (13·97 grammes). Cabinet de France, No. 5009[a].

IΣTI[AIOΣ?]

↑↑ 17·00 mm. 58·7 grains (3·80 grammes). Berlin Cabinet. Published *Z. für N.*, 1887, pp. 148–57, No. 23.

55. *Obv.*—Sphinx like preceding, but of more careless execution in some specimens.

Rev.—Vine-wreath tied below, within which two broad bands crosswise, flush with rest of design, on the horizontal one magistrate's name, and on the vertical one XIOΣ or XIOΣ.

Æ. ΙΗΝΩΝ *Rev.* XIOΣ.

↑↑ 16·50 mm. 69·0 grains (4·47 grammes). Brit. Mus., uncatalogued, from Lawson, Smyrna.

ΗΓΗΣΙΠ[ΠΟΣ] *Rev.* XIOΣ.

↑↑ 16·75 mm. 53·8 grains (3·49 grammes). My collection ex Whittall Coll. (?).

ΛΑΝΔΑΡΙ - - - *Rev.* ΧΙΟΣ.

↑↑ 17·25 mm. 51·8 grains (3·36 grammes). My collection ex Sir H. Weber Coll. [Pl. IV. 18.]

↑↑ 17·00 mm. 51·5 grains (3·34 grammes). Berlin Cabinet. Published *Kleinasiat. Münz.*, i, p. 103, No. 5.

ΠΟΛΥΜΗ - - - *Rev.* ΧΙΟΣ.

↑↑ 15·00 mm. 62·9 grains (4·08 grammes). Cabinet de France, No. 5111. [Pl. IV. 19.]

↑↑ 16·25 mm. 52·8 grains (3·42 grammes). Berlin Cabinet.

ΤΙΜΟΛ - - - ? *Rev.* ?

↑↑ 14·00 mm. 33·1 grains (2·14 grammes). Brit. Mus., No. 43, Cat. Ionia, Chios.

The mutilated names ΑΓΑ - - and ΟΧ - - may be added to this group (see Appendix II), since coins of the next type, No. 56[a] with ΕΡΜΩΝΑΞ, are found struck over them.

- ΙΟΞΚΟΥ - from a similar coin with ΦΙΛΤΗΣ in the British Museum may safely be restored to [Δ]ΙΟΞΚΟΥ-[ΡΙΔΗΣ].

Mionnet's *Médailles grecques*, vol. vi, p. 389, No. 14, records one of these bronze coins measuring 15·00 mm. with magistrate's name ΑΝΑΞΑΙ - - -. Kofod Whitte, perhaps describing the same coin, *De Rebus Chiorum*, &c., p. 81, No. 71, reads the name ΑΝΑ . . Γο - - -. The name might possibly be restored as ΑΝΑΞΑΓο[ΡΑΣ], but as I have been unable to trace the coin it is impossible to say to which of the above two classes it should belong.

No. 48. The coins of this type are very rare, and

the list given above includes all specimens known to me. Enough has already been said about the style of these coins, and about their place in the Chian series. With regard to the names they record, it has already been remarked that a Stoic philosopher named *Θεόδωρος* is known to have been a native of Chios, and *Ποσείδιππος* occurs on a grave stele found on the site of the ancient citadel. *Λέωχος* is unrecorded either by Pape, or Fick and Bechtel; it may be a pet name for *Λεωχάρης*. The coins with *Θεόδωρος* and *Θήρων* are from the same obverse die, but two quite different dies, both obverse and reverse, were used for the two coins with the name *Ποσείδιππος*; see Miss Baldwin's Pl. iv. 29 and Pl. v. 1. I may be wrong in attributing the issues with *Καλλικλῆς* to this class instead of to the next. Miss Baldwin, it will be noticed, places them very low down on her list, which seems to aim at being chronological.

The forms of the letters employed throughout are quite consistent, Μ, Π, and Σ always taking the forms Μ, Π, and Ϲ, but Ν varies from Ν to Ν.

No. 49. These coins are just as rare as the preceding, and the remarks already made in their case apply here as well. The differences in style and treatment between this and the last type can be clearly seen from the illustrations on **Pl. IV. 4–7.** In addition to the other distinctions already noted the striations of the reverse field tend to become regular, although there is a good deal of variety in the designs, of a minor kind. Altogether the main characteristic of this class is the fact that it presents a greater variety of design either than its predecessor or than the class that follows it. The specimens showing

a plain ring border in place of the convex shield have not been kept separate, although they would appear to be the latest.[68]

The *Ἑρμόφαντος*, whose name is found on one of these tetradrachms, may have been one of the Chian generals to whom statues were erected at Delphi after the battle of Aegospotami. The characteristically Ionic names *Εὐρύνομος*, *Ἡραγόρης*, and *Ἱππίης* may be noted, as none of them in this Ionic form occurs in either Pape's, or Fick and Bechtel's works. There is no change in the letters since the last type, but Φ is apparently always represented Φ.

The coins from Berlin with the names *Βασιλείδης* and *Ἑρμόφαντος* are from the same obverse die, which die is of quite a different type from that used for the tetradrachm with the former name in the British Museum [Pl. IV. 6]. The Sphinx on the coin with *Φοῖνιξ* [Pl. IV. 7] is of a special type, to which attention has already been drawn in the cases of the coins illustrated Pl. III. 16 and Pl. III. 21,[69] and which will be met with again in the drachms of the next series [Pl. IV. 8]. This is only one more proof of the very close connexion that exists between the coins of these two classes with names in full and those of the previous period with single letters and monograms.

No. 50. The correct placing of these coins is as

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[68] From now onwards it will no longer be necessary to divide the coins into so many different types as heretofore, in view of the broader distinctions rendered possible by grouping a certain number of magistrates' names under a given type. The minor variations need then only be referred to as above.

[69] See remarks under types Nos. 42 and 43.

much a puzzle as that of the group described under types Nos. 39–45. They are not so rare as the tetradrachms of classes *α* and *β*, those bearing the names *Θεόττις*, *Ἱππίας*, and *Σώστρα*[*τος*], in particular, being met with fairly frequently. The specimens with the finely granulated reverses [Pl. IV. 10], and the names *Ἐπαίνε*[*τος*], *Γέρως*, and *Φανοκλῆς*, are the rarest, and may perhaps be considered the latest of their class.

I owe this attribution to a suggestion of Miss Baldwin's, p. 48. My first impression of this sub-type, based on the style of its lettering, which never shows the later forms occurring on the issues with coarse granulations, was that it came at the head of its class. There is very little difference between the various obverses concerned, but the peculiar ground of the reverses on these particular issues certainly comes better at the end of the series than between the drachms with letters, &c., and the bulk of this class, as would have had to be the case otherwise.

In arranging these drachms under the heading of class *β*, it is not intended to convey the impression that they are supposed to have formed part of the same issues as the tetradrachms just described. It is rather that they fit in better as companions to the tetradrachms of class *β* than to those of class *α*, while class *γ*, with a distinctive style of its own, is the only one of the three in which given tetradrachms and drachms can unhesitatingly be ascribed to the same magistrate. Besides, class *γ* is undoubtedly later than these drachms. They really stand apart, more so even than the drachms with single letters and monograms, which at least can claim a possible connexion with the tetradrachms of class *α*. But in the case of these coins

the names found on them are distinct from those occurring on any of the tetradrachms, with the possible exception of *Ἱππίας* and *Ἱππίης*, the latter belonging to the tetradrachms of class *β*. It is by no means certain, however, that these two names should be taken as referring to the same person. It may be, of course, that this absence of connexion with other groups is only another case of material that is lacking, but it is curious.

Then, in the matter of style, with the exception of the tall Sphinx [Pl. IV. 8], which is common to all three groups, the obverses of the present coins bear a much greater resemblance to the drachms with single letters, &c., than to any of the tetradrachms. The two groups of drachms seem to follow each other closely. The Sphinx's wing, on all varieties of this group, is of a later type than on the drachms with letters, as would be expected, and the amphora, on a few specimens, exhibits the pear-shaped tip that was generally adopted for class *γ* and subsequent coins, and may consequently be regarded as a sign of comparative lateness. The pear-shaped tip is certainly never found on the drachms with letters, nor on the tetradrachms of classes *α* and *β*. The raised shield, on the other hand, is always present here in a more or less degraded form, and I have never noticed the plain ring border that has been referred to in the case of some of the class *β* tetradrachms as probably the last stage it reached before disappearing altogether. Also, the weights of this group differ very little from those of the earlier one, the averages shown in the table above being, if anything, in favour of the drachms with names. It is difficult to separate them, and yet

the conservative rule I have chosen to follow demands it. The absence of a hemidrachm from the series with names has already been noted, and marks a break that may have been of longer duration than mere appearances suggest. Another noteworthy point, supporting the attribution of this type No. 50 to at least as late a date as the tetradrachms of class β, is that the lettering on the coins seems to indicate a period of transition. Looked at as a whole, the lettering is less archaic than that of any of the tetradrachms—even those of class γ, with their accompanying drachms—and of some of the bronze. Μ takes the two forms Μ and Μ, and Ν is always Ν, Π is always Π, but Σ is as often Σ as Ϛ, Φ has the form already noted Φ. It is a pity that none of these test letters occurs on the drachms and hemidrachms of types Nos. 39–45.

The curiously worked field of the reverses is also a distinctive feature of this type. It can be traced back without a break to the artificially granulated ground of type No. 37. It is never seen on the tetradrachms of classes α and β, which followed a separate line of development, though no doubt derived from the same source. It appears only once, so far as I have observed, on the tetradrachms of class γ, but, as will be noted when they come to be discussed, it was probably an archaism in that case. This artificially granulated surface is peculiar to these drachms of Chios, the nearest approach in any other Greek series being the similarly treated reverses of certain issues at Teos.[70] The proximity of the two cities naturally adds to the interest of the resemblance.

[70] Brit. Mus., Nos. 24–5, Cat. Ionia, Teos.

Of the names supplied by the group, Σώστρατος, as stated above, is known to Chian history through the fourth-century sculptor of that name, and Φησῖνος (accent according to Pape, ed. 1875) was one of the magnates who threw open the gates of the citadel to Memnon and his Persians. Γέρως is a name unknown to Greek records, but there seems no reason to doubt the reading of the coins. The initial Γ, which has been thought uncertain, is quite clear on one of the specimens at Berlin. Ἰσχίμαχος, which seems a safe restoration for ΙΣΧΙΜΑ, is also new. It may be a weak form for Ἰσχόμαχος. It is interesting to note the alternative forms Θεῶττις and Θεῦττις, in this case undoubtedly struck by the same magistrate.

There remains the question of the method used in striking. Though we find occasional instances of deep punch-struck incuses like the one illustrated Pl. IV. 8, about half these pieces show much the same type of reverse as the drachms with single letters, &c., which were described as anvil-struck.

Nos. 51–2. Some of the tetradrachms now to be considered are the most plentiful that have come down to us. The specimen in the British Museum collection with Δημοκράτης and that from Paris with Σκύμνος are not known elsewhere, but the other two varieties of the class bearing the names Ἡριδανός and Κηφισόκριτος look as if they had been issued fairly freely for this denomination.

It is a little doubtful whether the coin with Δημοκράτης should be included in this class or not, as, its condition being not very good, it is difficult to distinguish details, and its weight is rather high. But the way in which the Sphinx's head is drawn, thrust

forward, and the shape of its wing, are both characteristic of the type, while it is struck on the small module that is one of its chief features. The smaller module and the total absence of the raised shield as a background to the obverse are the principal differences between this class and its predecessors, apart from the reduced weight. This last point is especially noticeable both in tetradrachms and drachms, and marks off the coins of this class as the latest silver issues of the fourth century.

This question of the approximate position to be assigned to the present group among the fourth-century issues constitutes the most important difference between Miss Baldwin's and my conclusions with regard to this period. It will be seen from her Pl. vi that Miss Baldwin places all the drachms of what I call type No. 50 after these tetradrachms and drachms of types Nos. 51–2. I cannot agree with this for the reasons given here and under type No. 50. I have tried to point out the difficulty of separating types Nos. 39–45, if taken as a whole, from the earliest coins of type No. 50 by more than a few years. I have also agreed that the three issues with fine granulations would come better at the end than at the beginning of the type No. 50 series, as otherwise the sequence would have been broken. But by interpolating the coins of types Nos. 51–2, as on Miss Baldwin's Pl. vi. 1–12 before 13–26, an unnecessary difficulty seems to have been created.

It is no doubt curious that the Pityos find should not have contained any of these coins, if, as I believe, they are later than the drachms with *Θεόττις* and *Φανοκλῆς*, which formed part of the hoard, but their absence

hardly affords a basis for argument as to the relative ages of the two types.

A greater uniformity in the obverse types than in the coins of class β or even of class α is also to be observed. The hair of the Sphinx's head is more elaborately dressed than on any of the preceding coins, the knot or chignon at the back being only seen here, and on the bronze issues summarized under type No. 54. The ground of the reverse is almost invariably ruled with vertical or horizontal lines carefully drawn and spaced, and easily distinguished from the broken striations or closely packed straight lines of the α and β classes. The only two exceptions to this, that I have noticed, are the tetradrachm with *'Ηριδανός*, already mentioned, showing a granulated ground of extra-conventional type (see Miss Baldwin's fig. 13, p. 32), and the same denomination from Berlin with *Κηφισόκριτος*, on which the irregular striations of the older style are to be seen. This coin also has a ring-border round the obverse, and is very likely one of the earliest of its class.

None of the names encountered calls for any special remark, though it is interesting to note *Σκύμνος*, a well-known Chian name in later days, appearing thus early. The lettering, although somewhat roughly executed, shows a tendency to archaism that has encouraged me to attribute the granulated reverse of the tetradrachm just mentioned to the same cause. Considering that these coins are undoubtedly later than the drachms of type No. 50, it is strange that we never meet with the forms M or Σ upon them that have already been noted on the latter, while even the obsolescent N is occasionally seen. There is also the

drachm with *Σκύμνος* in the British Museum, on which the name is written retrograde, the only case of retrograde lettering that I have observed in the whole Chian series.[71] This must be another piece of archaism, and an interesting parallel with it is afforded by a quarter drachm of Pixodarus in the British Museum (*Brit. Mus. Cat.: Caria*, p. 185, No. 15, and Pl. xxviii. 15), on which the dynast's name is written retrograde between the rays of a star. Considering the influence of the Carian princes in Chios from 345 to 340 B.C., something more than a coincidence seems called for to explain this. I am illustrating the variety of this drachm with the name *Σκύμνος* from Cambridge [Pl. IV. 13], as it seems to me to mark the last stage of degeneration reached by these fourth-century silver coins, and it may well be the latest representative of the old Chian silver standard.

The tetradrachm with *Κηφισόκριτος* in the Hunterian collection (No. 5 of Dr. Macdonald's Catalogue) and the unique specimen with *Σκύμνος* are from the same obverse die with a ring border. Though the name *Κηφισόκριτος* always appears in an abbreviated form on the tetradrachms it can be safely restored from the drachms, where, curiously enough, it is written at full length in spite of the more restricted space. All coins of this class are much more distinctly punch-struck than the drachms of class *β*.

No. 53. We owe these small bronze coins almost entirely to the Pityos find, and they are all rather rare.

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[71] Exception must be made in favour of a few cases of single letters; the ⋛, for instance, on type No. 47[a], and the numerous occurrences of ⅂ in Period IX.

They are very neatly executed, and the lettering is fine and clear. They fall naturally into three sub-types that are represented by the specimens illustrated on **Pl. IV. 14–16.** The first shows a bunch of grapes in front of the Sphinx and an incuse circle reverse. It has already been observed that it is impossible to say whether coins with the bunch of grapes are earlier than those without it or not, but the type is placed first here for the sake of continuity. No. 2 is of smaller module than either of the others, and exhibits a small Sphinx of a design practically identical with that of the tetradrachms, which cannot be said of Nos. 1 and 3. It looks earlier than they in spite of not showing the bunch of grapes. The reverse also has an incuse circle. In both these sub-types the letters **M** and **Σ** appear under the forms **M** and **ϟ**, but **N** has the late form. No. 3 is of rather larger and thinner module than the preceding, always shows the later form of **Σ**, and has no incuse circle. Attention may be drawn to the pear-shaped tip of the amphora plainly shown on Nos. 2 and 3. The Sphinx's hair is dressed in a style intermediate between the tetradrachms of classes *α* and *γ*.

Two names of historical interest are furnished by the group if some small latitude in restoration be allowed. *Ἀθηναγόρας* seems a fair assumption from **AΘHNA**- - since the only other known names that would fit the case are *Ἀθήναιος* and *Ἀθηνάδης*, while *Ἀθηναγόρας* happens to be the name of one of the three oligarchs who are said to have betrayed their country to the Persians. *Φησῖνος* we have already met with on the drachms of type No. 50, and the third, *Ἀπολλωνίδης*, may be restored from **AΠOΛΛΩ** - - of this

series, though not with quite the same confidence as *Ἀθηναγόρας* from ΑΘΗΝΑ - -.

I have only seen one specimen with the name ΑΜΦΙΛΟ - -, and one again with ΑΞΜΕΝ - -. The latter no doubt stands for *Ἄσμενος*, but probably refers to a later magistrate than the one who signed the tetradrachm of class *α*.

Ἡγήσιππος (or more likely *Ἡγήσιππος* at Chios) is a safe restoration of ΗΓΗΞ - - on account of the large piece with ΗΓΗΞΙΠ - - - included among the coins of type No. 55.

Ἡ]*ριδαν*[*ός*] may very likely be the same magistrate whose name we have met already under types Nos. 51–2. *Ἱππίας* and *Ἰσχίμα*[*χος*] are already known through the drachms of type No. 50. The rest call for no special remark, except *Φιτταϰ*[*ός*], which is an uncommon form, and probably an alternative for *Πιτταϰός* (see Pape) or *Ψιτταϰός*.

These coins show the same irregularity in the forms of the letters employed as the drachms of type No. 50. The three specimens illustrated on **Pl. IV** afford excellent examples of nearly all the variations to which attention has been drawn above.

No. 53[a]. This is the second instance to be recorded of a coin without a magistrate's name following or accompanying others of the same type bearing names (see above in reference to type No. 47[a]).

No. 54. The coins of this type are also principally known to us through the Pityos find, and are rare.

Their obverse type, as may be seen from **Pl. IV. 17**, is remarkably like that of the tetradrachms and drachms of class *γ*. The raised cross on the reverse was not a convenient design for preserving the inscriptions of

the coins, as, in the absence of either incuse square or circle, the letters quickly became worn. Out of thirteen specimens known to me, five, which under more favourable circumstances might have preserved their legends, are quite illegible.

The name *Ἱκέσιος* may record the magistracy, though somewhat late in life, of one of the Chian generals whose statues were seen at Delphi by Pausanias. Of the other two names occurring on coins of this type ΑΓΓΕ-- is not susceptible of certain restoration, but I am suggesting *Ἰστιαῖος* for ΙΣΤΙ-- on account of the prevalence of that name at Chios and other cities of Ionia. The lettering on these coins, like that on the tetradrachms and drachms of class γ, appears to consist of the more archaic forms only, though Ξ is the only test letter provided by the specimens so far discovered.

No. 55. This type is clearly later than the last, and, as suggested above, may even have been struck after the limit assigned to the present period. The coins are rare. The style of the Sphinx appears to vary, but as all the known specimens are in poor condition it is not possible to classify them. I am illustrating two specimens in order to show different types of Sphinx [Pl. XIX. 18–19] and the varied forms of the letters.

The name *Ζήνων* has already been noted on a small coin of type No. 53, also *Ἡγήσιππος*. ΛΑΝΔΑΡΙ-- looks, at first sight, like a mutilated inscription, so little does it suggest a Greek name,[72] but the letters are perfectly distinct as Pl. IV. 18 shows. The specimen in Berlin, which is the only other one I have seen, is not so clear, and might be read ΜΑΝΔΑΟΣ, but

[72] See R. Münsterberg's *Beamtennamen*, p. 46.

that does not help matters. The reading ΤΙΜΟΛ - - on No. 43 of Brit. Mus. Cat.: Ionia, Chios, is very uncertain.

The lettering in general shows the transitional character of types Nos. 50 and 53, and is well exemplified on the pieces illustrated.

Some of these coins have a slightly concave field not to be observed on the previous type.

APPENDIX I

List of magistrates' names belonging to coins of Period VII showing the denominations on which they occur.

	tetr.	*dr.*	*bronze.*		*tetr.*	*dr.*	*bronze.*
Ἀγα - - . . .	—	—	γ	Ἱκέσιος . . .	—	—	β
Ἀγγε - - . .	—	—	β	Ἱππίας . . .	—	β	α
Ἀθηνα[γόρας] .	—	—	α	Ἱππίης . . .	β	—	—
Ἀμφιλο - - . .	—	—	α	Ἴστι[αῖος] . .	—	—	β
Ἀμφιμήδης . .	β	—	—	Ἰσχίμα[χος] .	—	β	α
Ἀπολλω[νίδης] .	—	—	α	Καλλικλῆς . .	α	—	—
Ἀρίστης . . .	β	—	—	Κηφισόκριτος .	γ	γ	—
Ἀρτέμων . .	—	β	—	Λανδαρι - - . .	—	—	γ
Ἄσμενος . . .	α	—	α	Λέωχος . . .	α	—	—
Βασιλείδης . .	β	—	—	Λυκόρ[μας or -τας]	—	—	α
Γέρως	—	β	—	Ὀχ - - . . .	—	—	γ
Δημοκράτης . .	γ	—	—	Πεισι - - . . .	—	—	α
[Δ]ιοσκου[ρίδης]	—	—	γ	Πολυμη - - . .	—	—	γ
Εὐρύνομος . .	β	—	—	Ποσείδιππος . .	α	—	—
Ἐπαίνε[τος] . .	—	β	—	Σκύμνος . . .	γ	γ	—
Ἑρμαρχος . .	α	—	—	Σώστρα[τος] .	—	β	—
Ἑρμόφαντος . .	β	—	—	Φανοκλῆς . .	—	β	—
Ζήνων	—	—	α and γ	Φησῖνος . . .	—	β	—
Ἡγήσιπ[πος] .	—	—	α and γ	Φίλτης . . .	—	—	α
Ἡραγόρης . .	β	—	—	Φιττακ[ός] . .	—	—	α
Ἡριδανός . . .	γ	γ	α	Φοῖνιξ	β	—	—
Θεύδωρος . . .	α	—	—	Ἀναξαγο - - .	—	—	β or γ
Θεῦττις or Θεῦττις	—	β	—	ΛΥΚΙΔΕΟΣ	(?)	—	—
Θήρων . . .	α	—	—	ΤΙΜΟΛ - -	—	—	γ

The letters α, β, γ indicate, in the case of the silver, the three different classes into which these coins are divided above; and in that of the bronze, types Nos. 53, 54, and 55 respectively.

APPENDIX II

Summary of Pityos hoard from Herr A. Löbbecke's paper in Zeitschrift für Numismatik, 1887, pp. 148-57.

Class of Coin.	*Obverse.*	*Reverse.*	*Reference.*	*No of Coins in hoard.*
Ephesian tetradrachm	ΕΦ Bee	Forepart of Stag and Date palm	*B. M. Cat.* 30-52 variety	1
Erythraean Æ	Head of Heracles r.	ΕΡΥ Club and Bow	*B. M. Cat.* 66-82	26
Milesian tetradrachms	Head of Apollo l.	Lion standing l.	type of following / *B. M. Cat.* 53-67	2 / 11
,, drachms	,,	,,		
Chian drachms	Sphinx l.	Quartered incuse	*B. M. Cat.* 17-18 / type of drachms	11 / 4
,, hemidrachms	,,	,,		
,, drachm	,,	ΘΕΟΤΤΙΞ	Löbbecke's No. 3	1
,, ,,	,,	ΘΕΥΤΤ . .	,, 4	1
,, drachms	,,	ΦΑΝΟΚΛΗ .	,, 5 & 6	2
,, Æ. 10-12 mm.	,,	ΑΘΗΝΑ - -	,, 7	9
,, ,,	,,	ΑΠΟΛΛΩ - -	,, 8	6
,, ,,	,,	ΙΗΝΩΝ	,, 9	10
,, ,,	,,	ΗΓΗΞ - -	,, 10	13
,, ,,	,,	ΙΓΓΙΑΣ	,, 11	6
,, ,,	,,	ΙΣΧΙΜΑ - -	,, 12	8
				33 Æ & 78 Æ

APPENDIX II (*continued*).

Class of Coin.	*Obverse.*	*Reverse.*	*Reference.*	*No. of Coins in hoard.*
Chian Æ. 10–12 mm.	Sphinx l.	ΛΥΚΟΡ - -	Löbbecke's No. 13	6
,, ,,	,,	ΠΕΙΣΙ - -	,, 14	6
,, ,,	,,	ΦΙΛΑΤΗΣ	,, 15	3
,, ,,	,,	ΦΙΤΤΑ - -	,, 16	3
,, 10 mm.	,,	A l. Σ r. in dots	,, 17	5
,, ,,	,,	No letters	,, 18	18
,, ,,	,,	,, and no dots	,, 19	18
,, 16–17 mm.	,,	ΑΓΓΕ - - on cross	,, 20	2
,, ,,	,,	ΙΚΕΣΙΟΣ ,,	,, 21	1
,, ,,	,,	ΙΚΕΣΙ . . ,,	,, 22	3
,, ,,	,,	ΙΣΤΙ - - ,,	,, 23	3
,, 10–17 mm.	,,	Badly preserved	—	29
Coan tetradrachm	Head of Heracles l.	Crab and Club in dotted sq.	*B. M. Cat* 13–14	1
,, drachm	,, r.	Female head l.	,, 19, var.	1
Rhodian half-drachm	Head of Helios facing	Rose	—	1
Maussollus, tetradrachm	Head of Apollo ,,	Zeus r., in front B	,, 3, var.	1
,, drachms	,, ,,	,,	,, 10, var.	11
Pixodarus ,,	,, ,,	,,	,, 11–13	2

17 *AR* & 97 Æ

Total = 50 *AR* & 175 Æ

A CHRONOLOGICAL ARRANGEMENT OF THE COINS OF CHIOS; PART III.

(See Plates V, VI.)

Period VIII. 334–190 B.C.

In summarizing the historical events of the last period I overstepped the boundary allotted to it, and alluded to the peaceful era that opened in Chios under the rule of the Ptolemies. It was necessary, from the numismatic point of view, to close the period with the Macedonian occupation of the island, because it is to be presumed that all autonomous coinage ceased for a while after that event. The question that then arises is, how long did that inactivity last?

It has been suggested,[73] and fairly generally accepted, that no coins, except some unimportant bronze, were struck in the island between about 350 and 190 B.C. But, without attempting to decide exactly when the last silver issues appeared in the fourth century, the Pityos find has shown us that numerous issues of bronze were made down to 334 B.C. at least. Also, as I have remarked above, there is reason to believe that possibly one bronze series allied to the previous ones—my type

[73] Head, *Historia Numorum*, ed. 1911, p. 600; and Babelon, *Traité*, ii, p. 1045.

No. 55 [Pl. IV. 18–19], with its accompanying small pieces—was issued somewhat later than 334 B.C., but before the period now to be discussed. The most likely time for this would have been the years that intervened between the death of Alexander and the appointment of Antigonus as governor of Asia, say from 323 to 311 B.C. But for ten years again after the latter date, with Antigonus absolute master of Chios, it is highly improbable that any local coining of money was permitted. We come then to the year 301 B.C., to the death of Antigonus, and the passing of his dominions into the hands of the Ptolemies, before it can safely be assumed that municipal liberty was restored to the islanders. In other words, the present period might more accurately be described as from 301 to 190 B.C., thus leaving the thirty-three years that elapsed since the close of the last a practical blank as regards the local coining of money.

But having progressed so far we then find that all written records cease. Chios disappears from history for the best part of a century. It may be this very silence on the part of historians that has persuaded numismatists to refuse any noteworthy output to the Chian mint during the third century, although such inactivity is very unlikely in view of what we know of the prosperity reigning in the Aegean under the Ptolemies. This prosperity is attested not only by the plentiful coinage of Rhodes, which was largely due to her own energy, but by the issues of such comparatively unimportant mints as Cos, Calymna, Oenoe Icariae, and Samos. All these islands, and others as well, are admitted to have struck coins of their own during the third century, so why should Chios be made

an exception? Even if no suitable coins were known we ought still to suspect their existence and hope for their discovery. But though the deeds have been forgotten certain monuments remain. There are some bronze coins different from any of those referred to by Head (*Brit. Mus. Cat. Ionia, Chios*, Nos. 41–5) that can be shown very plausibly to have been struck during the period now under consideration. Until a few years ago these coins were very scarce indeed, when a fairly large hoard of them was found in Chios. Unfortunately the hoard was dispersed before any record was made, and I am even unable to say exactly when and where it was brought to light.

The principal varieties of the coins in question are illustrated on Pl. V. 1–4, and it will be seen that they reproduce in a larger form the small coins described under type No. 53 [Pl. IV. 14–16]. The obverse shows a Sphinx seated to left with or without a bunch of grapes in front of it, and on the reverse an amphora with a magistrate's name to right, and the word ΧΙΟΣ to left. There are no magistrates' symbols nor mint marks. The style is good, though clearly later than that of the small coins of type No. 53. The most interesting point about these coins, however, is that a considerable number of them were struck over specimens of type No. 55, mentioned above as probably the last coins issued in the fourth century, and then, in their turn, served as flans for some of the large series with a Sphinx to right. This latter class is usually assigned to the first century B.C., though I shall try to show that it must be dated at least one hundred years earlier; but, whatever its correct period may be, it is clear that these new coins

must come between it and the late fourth-century type No. 55.

It is also practically certain, from the resemblance that they bear to the bronze issues just referred to, that certain silver drachms of Attic weight were also struck at about the same time, although the date now suggested is much earlier than that usually ascribed to them. It is true that Dr. Imhoof-Blumer, in his general reference to the Attic drachms of Chios,[74] recognized that they must belong to two different periods at least, but he went no farther. Miss Baldwin, on the other hand, in her paper on the *Electrum and Silver Coins of Chios*, referred to above, suggests the last quarter of the fourth century as the probable date for the issue of these early specimens.

Although there is nothing much in the style of the coins to render this attribution unlikely, the rather abrupt change in type that it would imply from the drachms last described—type No. 52—and their Attic standard are, I think, objections to it. Also, as I have endeavoured to show, the political conditions just at that time were against any fresh issues, especially of silver. Then, in spite of the decidedly early look of these few drachms, there are several more issues, not very far removed from them in style, that cannot have appeared before 190 B.C. on account of their almost certain connexion with the Alexandrine tetradrachms then introduced. If these pieces of extra-good style are to be put back as far as Miss Baldwin suggests the interval between them and their successors would be much too long. It is mere guess-work of course, but

[74] *Griechische Münzen*, p. 654, No. 375, &c.

I should hazard some such date as 250–200 B.C. as the one best calculated to satisfy all the characteristics of the drachms to be described under this period.

The Attic standard was not generally employed in Asia Minor till the second century, but it was gradually creeping into use under the influence of the Lysimachean tetradrachms from the end of the fourth century onwards. There is nothing improbable, then, in supposing that it was introduced at Chios as early as the date now suggested. Sufficient time would have elapsed by then for the old types on silver coins to be forgotten, and for the new issues to be modelled on the contemporary bronze, as was evidently the case. Bronze coins having been struck more or less continuously had, with the assistance of the conservatism so strongly rooted in the Chian mint, preserved their fourth-century types.

Although the silver pieces among the coins now to be described are more carefully executed than the bronze, it is impossible not to acknowledge the strong resemblance between them [Pl. V. 1–9]. Miss Baldwin fully recognizes this (p. 51 of her paper), and I think it unnecessary to labour the point. The only difference of importance between the two metals is that the drachms bear a symbol in the field of the reverse as well as the bunch of grapes on the obverse, while the bronze, as already observed, exhibits no symbols even when the bunch of grapes is omitted. This symbol on the silver coins cannot be the responsible magistrate's signet because the same object appears on coins with different names. It must therefore represent a second official in charge of the mint, whether the eponymous magistrate or another. This is the first time that anything of the sort has been seen on the Chian coinage,

though it is only in keeping with a custom that was becoming general in the Greek world by the middle of the third century B.C. The innovation may have been due solely to the reintroduction of silver, but it seems to strengthen the probability that these drachms succeeded some at least of the bronze coins with which they are now associated.

The following are the bronze and silver coins that I would attribute to this period:

56 *a*. *Obv.*—Sphinx of rather stunted proportions seated l. on plain exergual line; wing curled in conventionalized manner similar to type No. 51, &c.; hair dressed to show chignon, side roll, and loose curls hanging on neck, also like type No. 51; only one foreleg showing.

Rev.—Amphora with wide neck and pear-shaped tip, having to r. of it a magistrate's name, and to l. ΧΙΟΣ. Very often a concave field, punch-struck.

Æ. ΑΓΓΕΛΗΣ ↑↑ 17·50 mm. 52·2 grains (3·38 grammes). Athens Cabinet. *J. Int. d'Arch. Num.*, 1913, p. 35. [Pl. V. 1.] Struck over a coin of type No. 55, with ΗΙ[illegible] - - Η - - and - - ΟΣ showing on *obv.* and Sphinx on *rev.*

ΕΡΜΩΝΑΞ ↑↑ 17·50 mm. 61·7 grains (4·00 grammes). Athens Cabinet. *J. Int. d'Arch. Num.*, 1913, p. 35.

↑↓ 16·00 mm. 47·9 grains (3·15 grammes). Munich Cabinet. Two other pieces at Athens struck over coins of type No. 55, one with ΑΓΑ - -, and the other with ΟΧ - -.

ΗΡΟΔ - - ↑↑ 15·00 mm. 25·9 grains (1·68 grammes). Berlin Cabinet.

ΦΑΝΟΔΙΚΟΣ ↑↑ 17·50 mm. 52·2 grains (3·38 grammes). Athens Cabinet.

↑↑ 16·50 mm. Wt. ? Munich Cabinet.

↑↓ 17·00 mm. 55·0 grains (3·56 grammes). Brit. Mus. Collection, recent acquisition.

ΦΙΛΤΗΣ ↑↑ 18·00 mm. 45·8 grains (2·97 grammes). Athens Cabinet. *J. Int. d'Arch. Num.*, 1913, p. 36.

↑↑ 18·50 mm. 57·9 grains (3·75 grammes). Paris Cabinet, No. 5088. [Pl. V. 2.]

One specimen in private collection at Chios struck over a coin of type No. 55 with [ΞΗ]ΝΩΝ.

One specimen recently acquired by British Museum struck over a coin of type No. 55 with - - ΙΟΞΚΟΥ - -

ΦΙΛΩΝ ↑↑ 17·50 mm. Wt. ? Munich Cabinet.

ΧΙΡΩΝ ↑↑ 17·50 mm. 49·4 grains (3·20 grammes). Athens Cabinet. *J. Int. d'Arch. Num.*, 1913, p. 36.

One specimen in Mr. E. T. Newell's collection and two others from Athens struck over coins of type No. 55, one of the latter with - - ΩΝ.

56 *β*. *Obv.*—Similar to preceding, but large bunch of grapes in front of Sphinx, and the wing somewhat more rounded.

Rev.—Same as preceding, except that amphora has narrower neck and sharp pointed tip.

Æ. ΕΡΜΟΣΤΡΑΤ[ΟΣ] ↑ ? 16·00 mm. Wt. ? From a dealer's stock in Chios.

ΘΕΟΔΟΤΟΣ ↑← 17·50 mm. 59·1 grains (3·83 grammes). Athens Cabinet. *J. Int. d'Arch. Num.*, 1913, p. 36.

↑← 17·50 mm. 70·8 grains (4·59 grammes). My collection.

ΙΣΤΙΑΙΟ[Σ] ↑↓ 17·25 mm. Wt. ? Munich Cabinet. [Pl. V. 3.]

ΚΛΕΙΤΩΝ ↑ ? 15·50 mm. Wt. ? From a dealer's stock in Chios, 1911. This name is also recorded by Kofod Whitte, p. 87, No. 111, ex Mus. Thomsen.

ΦΑΝΟΔΙΚΟ[Σ] ↑ ? 15·50 mm. Wt. ? From a dealer's stock in Chios, 1911.

ΧΙΡΩΝ ↑↓ 17·00 mm. 62·0 grains (4·02 grammes). Vienna Cabinet.

56 γ. *Obv.*—Similar to preceding, except that the bunch of grapes is smaller, and that the Sphinx is in lower relief and of slighter proportions: the breast is also indicated, and the tail bears a tuft.

Rev.—Same as preceding, without incuse circle. Lettering tends to become larger.

Æ. ΒΑΤΙΣ ↑↓ 16·50 mm. 53·8 grains (3·49 grammes). Paris Cabinet, Wadd. 2018. [Pl. V. 4.]

↑↓ 16·25 mm. 61·4 grains (3·98 grammes). My collection, bought in Chios.

ΘΗΡΩΝ ↑↓ 16·25 mm. 83·8 grains (5·43 grammes). Paris Cabinet, No. 5040.

ΚΡΙΤΩΝ ↑? Size ? Wt. ? In private hands in Chios.

ΦΙΛΙΣΤΗΣ ↑↓ 17·50 mm. 57·4 grains (3·72 grammes). Athens Cabinet.

↑↓ 17·00 mm. 53·8 grains (3·49 grammes). Berlin Cabinet.

- - ΓΙΚΛΟ - - ↑↓ 17·00 mm. 77·2 grains (5·00 grammes). Athens Cabinet.

↑? 16·00 mm. Wt. ? Cabinet of American Num. Soc., Miss Baldwin's fig. 17.

α, β, or γ. ΗΡΙΔ[ΑΝΟΣ] ↑? 17·50 mm. 57·1 grains (3·70 grammes). From coin on which Paris Cabinet specimen No. 5032, with Sphinx to r. and ΗΡΟΣΤΡΑ[ΤΟΣ] *rev.*, was struck. [Pl. VI. 2.]

57 α. *Obv.*—Sphinx of good style seated l. on plain exergual line; wing curled in conventionalized manner, but feathers indicated by finer lines than in 56 α and β; hair dressed to show chignon, side roll, and loose curls hanging on neck; only one foreleg showing. The tail bears a tuft, and the breast is indicated. In front bunch of grapes. The whole in very fine dotted border.

Rev.—Amphora similar to type No. 56 γ, having to r. of it a magistrate's name, and to l. ΧΙΟΣ in very neat lettering. In field l. ear of bearded wheat. The whole in very fine dotted border.

Æ. ΕΟΝΟΜΟΣ ↑? 18·00 mm. 66·0 grains (4·28 grammes). Attic drachm. Metr. Mus., New York, U.S.A., ex Ward Coll., No. 682, G. F. Hill's Cat. [Pl. V. 5.]

ΗΡΙΔΑΝΟΣ ↑↑ 17·25 mm. 56·5 grains (3·66 grammes). Attic drachm. Fitzwilliam Mus., Cambridge, J. R. McClean Coll.

(Probably) - - ΜΟΚΛΗΣ ↑? 16·00 mm. 62·63 grains (4·06 grammes). Attic drachm. Ex Philipsen Coll., part of lot No. 2253, Hirsch's Sale Cat., 1909.

57 β. *Obv.*—Similar to preceding, except that Sphinx's wing is more naturalistically drawn, and the breast is not indicated.

Rev.—Same as preceding, except that symbol in field l. is a race-torch, and the border a plain line.

Æ. ΘΕΟΓΟΜΓΟΣ ↑↑ 17·00 mm. 60·2 grains (3·90 grammes). Attic drachm. Brit. Mus. Coll., No. 56, Cat. Ionia, Chios. Pierced. [Pl. V. 6.]

↑↑ 19·00 mm. 64·7 grains (4·19 grammes). Attic drachm. Munich Cabinet. In *Griechische Münzen*, No. 390, Dr. Imhoof-Blumer reads the name in this specimen ΘΕΥΓΟΡΓΟΣ.

↑↑ 18·00 mm. 65·3 grains (4·23 grammes). Vienna Cabinet, No. 17923.

57 γ. *Obv.*—Similar to preceding, but no curls on Sphinx's neck, and design in plain line border.

Rev.—Same as preceding, but coarser lettering and no symbol in field.

Æ. ΗΙΘΕΟΣ ↑↑ 18·00 mm. 61·9 grains (4·01 grammes). Attic drachm. Vienna Cabinet. [Pl. V. 7.]

58 α. *Obv.*—Sphinx seated l. showing wing and general characteristics of types Nos. 56 γ and 57 α. In front small bunch of grapes.

Rev.—Same as type No. 56 γ.

Æ. ΑΣΜΕΝ[ΟΣ] ↑↑ 11·00 mm. Wt. ? Athens Cabinet. (No grapes on this coin.)

ΒΑΤΙ[Σ] ↑← 11·50 mm. 13·1 grains (0·85 gramme). My collection, bought in Chios. [Pl. V. 8.]

58 β. *Obv.*—Similar to preceding, but of more careless workmanship, and wing shows separate feathers, as in type No. 57 β and γ.

Rev.—Same as preceding.

Æ. ΗΙΘΕΟΣ ↑↑ 10·00 mm. 17·6 grains (1·14 gramme). Berlin Cabinet. [Pl. V. 9.]

ΓΟΣΕΙΔ - - ↑↑ 12·00 mm. 14·8 grains (0·96 gramme). Fitzwilliam Mus., Cambridge, Leake Coll.

No. 56. We are chiefly indebted to the unpublished find mentioned above for our knowledge of this type, although there were a few isolated specimens of it in Paris, Munich, and Vienna before the hoard was uncovered and dispersed. I have had to rely largely on a photograph taken of several of the coins composing the hoard before it was disposed of, for some of my information, which will account for its fragmentary nature in the cases concerned.

As will be seen from the specimens illustrated [Pl. V. 1–4] the type divides itself into three clearly defined sub-groups, and it is a little difficult to determine in what order to arrange them. At first sight one's choice is inclined to fall upon the γ group as the earliest [Pl. V. 4], in spite of the fact that it is only specimens of α [Pl. V. 1–2] that are found struck over coins of type No. 55. The workmanship of the obverse in group γ is neater on the whole than in α and β, and the Sphinx's wing looks more like that

of types Nos. 54 or 55 when the latter are worn. On the other hand, groups α and β, which must be taken together, show more solid links with the previous types than does γ. Group α, at least, still preserves the pear-shaped tip to the amphora [Pl. V. 2], a feature that is very rarely seen after this, and both α and β are frequently found struck on concave flans even when these have not come down from type No. 55. The flans of group γ, however, are always flat on both sides, and more modern looking. Then the wing and other features of the Sphinx in the two earlier groups, although carelessly drawn, come nearer to the previous types in essentials than in the better proportioned obverses of group γ. These points will all be found mentioned in the detailed descriptions above. As far as I have been able to gather no specimens of the third group occurred in the find referred to at the beginning of this section, and although this is not conclusive evidence, it makes it probable that the group I am distinguishing as γ was struck subsequently to the other two.

The lesson taught by the lettering of the coins is also in favour of placing them in the order here suggested. There is a tendency in groups α and β for the Σ to approximate to the open form ϵ, whereas in γ it always appears as Σ, with the upper and lower bars considerably prolonged beyond the middle ones. The same may be said of Ε. In the first two groups it preserves the Chian fifth- and fourth-century form, in which all three cross-bars are of equal length, but in the last it is rendered thus, Ε. At Athens this form appeared earlier, as may be seen by comparing Plates iv and v of *Brit. Mus. Cat. Attica.* All the coins illustrated on the

latter are fourth-century issues, but nearly all show this late form of Ε. Otherwise, throughout types Nos. 56–8, Μ and Ν are everywhere square, and never assume the splayed forms of the previous centuries. Ο is still made markedly smaller than the other letters. Π is always Γ. Φ no longer takes the peculiar shape noted on the earlier coins. Finally, Ω is generally Ω, and in certain cases Ω.

With regard to the die-positions it will be noticed that group α shows ↑↑ generally, and ↑↓ rarely; β shows ↑↓ and ↑← in about equal quantities; and γ is invariably arranged ↑↓.

Beyond the fact that a large number of them are unpublished so far there is nothing particular to remark about the names, since we know nothing of the people who bore them, but there was evidently a predilection at this time for the termination -ΩΝ. This becomes much rarer during the early part of the next period, and in the late part it disappears entirely.

Βάτις is the first genuinely foreign name to be recorded among the Chian magistrates, and *Φίλτης*, which we have already met with under type No. 53, is unknown as a personal name from any other source than these two series of coins and one of Samos (*Monn. Grecques*, No. 301).

It has been said above that groups α and β must not be separated in trying to arrive at the order in which the coins of this type appeared. Apart from the fact that they were found together, it will be observed that the names *Φανόδικος* and *Χίρων* (the latter no doubt a variant for *Χείρων*) occur on coins of both sub-types, and make it look as if the issues must have overlapped.

Coins bearing the names *Ἑρμόστρατ*[*ος*], *Θήρων*, *Κλείτων*, *Κρίτων*, and *Φίλων*, I only know from single specimens, and none of the others of this type can be called anything but rare.

Mionnet (*Méd. Gr.*, iii, p. 267, No. 86) mentions a bronze coin measuring 17·00 mm. with a Sphinx to left, and the name ΦΑΝΑ - -. Kofod Whitte does the same (No. 153), evidently copying Mionnet. Without actually dismissing this as a false reading, it seems possible that ΦΑΝΑ - - might be a mistake for ΦΑΝΟΔΙΚΟΣ, since there is a specimen of this issue at Munich in rather bad condition which Mionnet may have seen and misread as ΦΑΝΑ - -. I have personally seen no coin at all answering this description, but as Mionnet's evidence cannot be disproved I am including the name in the list of magistrates belonging to this period in the hope that it may be confirmed some day. The small coin with ΦΑΝΑΓΟ[ΡΗΣ or ΡΑΣ], to be noted later, cannot be taken as indicating the existence of a large piece of the present type with the same name because it belongs to one of the subsequent periods, probably to the beginning of the first century.

The weights of these coins, although irregular, seem to aim at the average attained by the last two types, viz. 61·7 grains (4·00 grammes). I have only met with one instance of a really light coin, the one at Berlin mentioned above with ΗΡΟ/ - -. This is struck on a thin flan, like so many of the succeeding series with the Sphinx to right, but the rest of the flans that I have seen are thick and smooth at the edges. The weights of the corresponding small pieces of type No. 58 bear roughly the same relation to No. 56 as was noted when comparing type No. 53 with Nos. 54–5. They represent,

that is to say, about one-quarter the weight of the larger pieces.

No. 57. The arguments for ascribing these drachms to their present position have been stated above. My impression is that the two first sub-classes of type No. 56 were struck for a time without any silver, and that then No. 56 γ and the earliest of these drachms made their appearance together. Everything about them points to their being contemporaries, especially the forms of the letters used, and it seems possible that the care bestowed on the preparation of the dies for the re-established silver coinage may have reacted on the bronze issues. The die-positions are different, it is true, nearly all the drachms examined showing ↑↑, while, as remarked above, group γ of the bronze is invariably arranged ↑↓; but this is not evidence of much importance, especially in different metals.

These drachms are very rare, and I am recording all the specimens known to me, except one with the characteristically Ionic name *Εὔνομος* in the collection of Prof. Pozzi of Paris, of which I have not been able to obtain particulars.

The coin from the Philipsen Collection with the name - - ΜΟΚΛΗΣ is doubtful, as it was not illustrated in the catalogue. All the evidence, however, points to its belonging here—weight, module, symbol, and absence of wreath on the reverse. The name *Δημοκλῆς* occurs on the small bronze of the next century.

It will be observed [Pl. V. 5–7] that the style, although undoubtedly good, suffers a steady deterioration, until the coin with *Ἱέθεος* from Vienna is very little better than the earliest of the drachms assigned here to the next century. There were very likely

intermediate issues that are lost, but on the whole the development is fairly well represented. The features, apart from style and weight, that especially distinguish the coins of this type from those that follow it, are the finely dotted or plain line circle on both sides, and the smaller module.

The weights are distinctly higher, on the average, than those of the next main group, although one or two specimens of the latter exceed 61·7 grains (4·00 grammes). The seven specimens recorded of the present type, one of which is pierced, average 62·5 grains (4·047 grammes), and four specimens of the type immediately following 64·4 grains (4·17 grammes), while sixty-five specimens, two of which are pierced, of the issues that I am attributing to the latter part of the second century and the opening twelve years of the first average only 56·2 grains (3·64 grammes).

No. 58 includes the few specimens of small-module bronze pieces that may safely be assigned to the present period on account of the names they bear, and of the position and style of the Sphinx. They are divisible into two groups, the former of which [Pl. V. 8] seems to belong to the same issues as sub-types Nos. 56 γ and 57 α, and the latter [Pl. V. 9] to No. 57 γ. No large bronze of this particular type has so far been discovered.

APPENDIX.

List of magistrates' names belonging to coins of Period VIII showing the denominations on which they occur.

	drachms.	*large bronze.*	*small bronze.*
Ἀγγέλης	—	α	—
Ἄσμεν[ος]	—	—	α
Βάτις	—	γ	α
Εὔνομος	α	—	—
Ἑρμόστρατ[ος] . . .	—	β	—
Ἑρμώναξ	—	α	—
Ἡίθεος	γ	—	β
Ἡριδανός	α	α, β, or γ	—
Ἡρο[δ] - -	—	α	—
Θεόδοτος	—	β	—
Θεόπομπος	β	—	—
Θήρων	—	γ	—
Ἰστιαῖος	—	β	—
Κλείτων	—	β	—
Κρίτων	—	γ	—
Ποσειδ - -	—	—	β
Φανόδικος	—	α and β	—
Φιλίστης	—	γ	—
Φίλτης	—	α	—
Φίλων	—	α	—
Χίρων	—	α and β	—
- - γικλο - - . . .	—	γ	—
- - μοκλῆς	α (?)	—	—
ΦΑΝΑ - - . . .	—	(?)	—

The letters α, β, γ indicate the particular class in their respective categories to which the coins belong according to the detailed list given above.

Period IX. 190–88 B.C.

The fairly large issues of Alexandrine tetradrachms that Chios made in common with so many of the Ionian cities after the defeat of Antiochus III by the Romans[75] are a proof that the island had again become prosperous. This prosperity had no doubt been growing during the previous century, and signs of it have already been noted in the coins attributed to that period in the last section. But Chios suffered a temporary eclipse when, in siding with Rome against Philip V, her capital was twice besieged, and captured at the second attempt.[76] Her faithfulness to Rome stood her in good stead at the last, for, after the battle of Magnesia, she was recompensed by the Senate with a grant of land.[77] Though we are not told where this land was it is possible that she now re-entered into possession of Atarneus, which would account to a great extent for her evident increase of wealth throughout the second century.

It is only natural to suppose that drachms and bronze coins must have been struck during this period as well as the tetradrachms. But, principally because no names recorded on the tetradrachms had been observed on any other series or *vice versa*, it has been held that the bulk of the Attic drachms known to us, and the whole of two large series of bronze coins as well, not to speak of the various less important bronze issues, must be assigned to the fifty-four years between

[75] *Brit. Mus. Cat. Ionia*, Introd., p. xlviii.
[76] Appian ix. 3; Plutarch, *De Mulierum Virtutibus*, 3.
[77] Livy xxxviii. 39.

Sulla's decree of autonomy to the Chians and the accession of Augustus.[78]

As a matter of fact there are two names that occur both on the tetradrachms and on the two series that I am suggesting as their contemporaries, but this may well have escaped notice in a compendious work like the *Historia Numorum*. On the other hand there are at least ninety-five different magistrates' names in the three series just referred to, which, although doubtless more fully represented in our museums than any previous Chian issues, can hardly be looked upon as complete. In addition to these there are also some twenty names from small bronze coins that probably do actually belong to the first century B.C. It is evident, therefore, supposing that the responsible magistrate was changed annually, that the series in question cannot all be squeezed into the period 84–30 B.C. And when we consider the circumstances attending the deportation of the islanders by Mithradates, we can scarcely credit the mint with much activity till several years after the population had been restored, which would of course tend to shorten the period still further. We have numerous proofs, besides, of the poverty succeeding the restoration, which helps to increase the probability that considerably less than half of the pre-imperial coinage still to be examined was struck after 84 B.C.

This theory will be found to be supported by the evidence both of style and of epigraphy.

The oligarchical form of government, that seemed

[78] *Hist. Num.*, ed. 1911, p. 602; and *Brit. Mus. Cat. Ionia, Chios*, Nos. 46–97.

so well suited to the island's needs, had been re-established during the third century, and in its hands Chios enjoyed a full measure of autonomy under the Romans until the Mithradatic wars.

There probably was a slight break in the coinage during the wars with Philip V which would account for the changes we now find both in silver and bronze apart from the introduction of the Alexandrine tetradrachms. The troubles at the end of the third century were such as to make it improbable that the issues of tetradrachms can have begun much before 190 B.C., thus confirming the generally accepted opinion with regard to the date of their introduction. We are also thereby provided with one of our rare fixed chronological points for the Chian series if the suggestion, which I am making below, be accepted as to the particular issues of drachms and bronze coins that we should regard as the contemporaries of the tetradrachms.

The earliest-looking of the still undescribed drachms have a dotted circle on the obverse considerably coarser than on the previous issues [Pl. V. 5–6], and a vine-wreath on the reverse [Pl. VI. 1], which is an innovation on silver coins but recalls the wreath on the fourth-century bronze (types Nos. 54–5). Judging by the surviving specimens it would seem that these drachms were not struck very frequently. One of the two big bronze series hitherto attributed to the period after 84 B.C., in which we see the Sphinx for the first time turned to right on bronze coins[79] [Pl. VI. 2–5], has,

[79] A solitary exception to this is to be found in the case of type No. 46ª.

I think, an undoubted right to be included among the early second-century coins as the contemporary of the foregoing drachms. These bronze issues, as already reported, are occasionally found struck over coins of type No. 56, with the Sphinx to left [Pl. VI. 2–3], showing that they not only followed closely after the latter, but that there was a period of scarcity between their dates of issue.

We then find drachms of less careful style than the last [Pl. VI. 7–8] with a formal vine-wreath on the reverse. This wreath differs from the previous one in showing two thyrsus-like knobs at its upper ends, a feature which, after their first appearance, will be seen to be faithfully preserved till the last imperial issues made under Gallienus. With these drachms may be associated a slightly later type of the bronze series with Sphinx to right, and the small issues for which it is impossible to fix a more exact position [Pl. VI. 9–12].

These various coins coincide in my opinion with the Alexandrine tetradrachms. The tetradrachms are usually divided into two groups, Müller's Classes V and VI. It is not easy to say confidently which of the above-mentioned drachms and bronze issues should be allocated to the earlier of these [Pl. V. 10–11] as the coins composing it are distinguished only by monograms, and, though these are plentiful enough, they cannot with certainty be resolved into any of the names furnished by the supposed divisional series. But, judging by their appearance and weight, the two issues represented by Pl. VI. 1 are manifestly earlier than the rest of the drachms now to be considered. And the name on one of them, ΑΕΩΜΕΔΩΝ, taken in

conjunction with their similar style and lettering and the prow symbol, connects it unequivocally with the main part of the bronze series with Sphinx to right, and thus provides us with a small though sure foundation upon which to work. These are the coins that I would attribute to the same period as the tetradrachms of Class V.

Then the slightly later drachms mentioned above [Pl. VI. 7–8] and the same series of bronze coins [Pl. VI. 2–6 and 9–12] in its widest application are probably the contemporaries of the tetradrachms of Müller's Class VI [Pl. V. 12–14]. This attribution is supported by the occurrence of the two names, ΑΛΚΙΜΑΧΟΣ and ΓΝΩΣΙΣ, both on the tetradrachms and on the two series mentioned, the former on one of the drachms and the latter on an issue of the bronze coins.

We finally come to a number of less stable types among the drachms which are not easy to arrange in a satisfactory sequence. The coins illustrated [Pl. VI. 13–16] represent the principal varieties that I have observed. They are characterized by their rougher style, later forms of lettering, and, with a few exceptions like Nos. 13 and 15 on the plate, by the less formal type of vine-wreath on their reverses. These coins are all evidently later than those mentioned above, but yet so near to them in style that it seems fair to suggest that they coincided with the period that followed the disappearance of the tetradrachms, *circa* 133 B.C.[80] The bronze coins that appear to have been struck at the same time as these drachms are of

[80] *Brit. Mus. Cat. Ionia*, Introd., pp. xlviii–li.

quite a new type [Pl. VI. 17–20], but their style and lettering and the names that they bear in common all point to these two series having been contemporaries. The flans of the new bronze issues are both smaller and thicker than their predecessors, and the Sphinx, generally though not always turned to right, is seated on various objects such as a club and winged caduceus combined, or a serpent-staff, which seem to stand for the symbols in the field of the previous bronze series. The Sphinx also has one forepaw raised in many instances, as in the little symbol on the later tetradrachms, and on one of the drachms [Pl. VI. 13] which thus forms a link between this sub-period and the last.

The inauguration of the Roman province of Asia in 133 B.C. was the opening of a new era for most of the Ionic cities, and was signalized there by the issue of "cistophori". These coins do not seem to have been struck at Chios, which supports the contention, arrived at independently, that the island was not included in the province. The appearance of the drachms just referred to shows that the continuity of her silver issues at least was maintained at Chios for some time after those that can safely be connected with the Alexandrine tetradrachms. This continuity affords still further confirmation of the absence of any interference with purely local affairs on the part of Rome during the second century, and there is consequently ample justification for not postulating any fresh period in the numismatic history of Chios till after the Mithradatic wars.

On the other hand the attribution of the new bronze series to this particular date is in the nature of a

conjecture, but in view of the reasons given above the arrangement seems on the whole to give more satisfaction than any other. Why there should have been such a radical change in the bronze types, while the silver ones remained practically unchanged, is a question that I cannot answer. It is a point that perhaps permits of a solution, but for the present I am unable to suggest one.

Among the large and miscellaneous collection of coins found at Delos during the excavations of 1906–8, most of which belonged to the period subsequent to 167 B.C., when Delos was declared an open market and handed over to Athens by the Romans, there was a certain quantity of Chian bronze pieces. These are all recorded by Svoronos in *Journ. Int. d'Arch. Num.*, 1911, p. 77 and ff., and it will be seen that they include nothing earlier than the coins of this type. I am noting the fact that certain specimens were found in Delos under their magistrates' names.

From this time onwards no event of any importance took place till the revolt of the Greek cities against Rome in sympathy with Mithradates. Chios once more seems to have proved true to her allegiance, and to have resisted all temptation to join the revolt. Nothing else will explain the violence of Mithradates' revenge. Saying that he had the right to put all the inhabitants to death, he levied a fine on the island of 2,000 talents, and sent a general called Zenobius to collect it. Partly by taking their jewels from the women and the ornaments from the temples the people managed to pay the sum required. But on a plea that he was being given short weight, though probably in accordance with a prearranged plan, Zenobius carried

off the whole population into Pontus under circumstances of great cruelty.[81]

Thus for the second time in her history was the island depopulated, and although, as in the days of Darius, the exile did not last long, it was to a sadly impoverished state that the inhabitants returned.

In effect it was to bring out the loss of prosperity caused by the policy of Mithradates as strongly as possible that I have dwelt rather long on this incident. There can be no doubt that the general condition of the island previous to 88 B.C. was entirely different from what it was when the Chians were once more reinstated in their homes. This took place four years later, in 84 B.C., owing to one of the conditions laid down by Sulla in his treaty with Mithradates, and through the kind offices of the citizens of Heraclea Pontica.[82]

The first of the second-century coins to be examined are the Alexandrine tetradrachms. I do not propose to publish all that I have recorded of the coins with monograms, partly because my lists are by no means complete, and partly because I have despaired of resolving any of the monograms into an intelligible form with certainty. I shall content myself with indicating the principal varieties of these coins, and shall then give all the names that I have been able to collect from the later group.

The various types of Alexandrine tetradrachms bearing the Sphinx symbol are as follows:

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[81] Appian, *De Bello Mithridatico*, 46 and 47.

[82] Appian, *loc. cit.*, 55 and 61; and Memnon from Didot's *F.H.G.*, iii, p. 543.

59 *a*. *Obv.*—Head of young Heracles to r. wearing lion's skin head-dress. High relief. No border.

Rev.—(Müller's Class V.) ΑΛΕΞΑΝΔΡΟΥ in field r. Zeus, nude to waist, seated l. on throne with high back, the right foot drawn back behind left, and both generally resting on footstool: in his outstretched right hand he holds eagle facing right, and in his left sceptre. The legs of the throne, of which only two are seen, sometimes consist in part of their length of little Sphinxes facing outwards. Between legs of throne is a single letter or monogram, and in front of Zeus's knee a monogram (in a few instances a single letter). Above this is a Sphinx with curled wing seated l. or r., generally on a plain line. Plain exergual line.

Æ. Size about 30·00 mm. Wt. 260–254 grains (16·85–16·46 grammes). Attic tetradrachm.

Below throne ⌐, in field l. ⋲, and above Sphinx to l. Berlin Cabinet. [Pl. V. 10.]

Below throne Φ, in field l. Ξ, and above Sphinx to r. Brit. Mus. [Pl. V. 11.]

Below throne nothing, in field l. Κ, and above Sphinx to l. resting its forepaw on club, handle upwards. Brit. Mus. (This coin is in lower relief than the preceding, and intermediate between Müller's Classes V and VI.)

59 *β*. *Obv.*—Similar, but of more careless style, and in lower relief. Border of dots.

Rev.—(Müller's Class VI.) As preceding, but no exergual line, and monogram in field l. immediately below the outstretched hand of Zeus. In front of footstool Sphinx with curled wing seated r. or l. and raising further forepaw. No letter under throne, with one exception.

Æ. Size about 32·00 mm. Wt. 260–254 grains (16·58–16·46 grammes). Attic tetradrachm.

In field l. ΦΛΕ and below Sphinx to r. Brit. Mus. [Pl. V. 12.]

In field l. ΘΕ and below Sphinx to l. Berlin Cabinet.

In field l. and below Sphinx to l., under throne Ξ. Brit. Mus.

In field l. ΓΦΓ and below Sphinx to l. on amphora lying on its side, and raising its further forepaw over a bunch of grapes. Vienna Cabinet.

In field l. ⋈P and below Sphinx to l. on amphora lying on its side, but no grapes. My collection.

60. *Obv.*—Same as preceding.

Rev.—(Müller's Class VI.) As preceding, but style, if anything, more careless, and throne has no back. There is also no footstool. Sometimes letters in field l. ΠΟ or AP. Opposite left foot of Zeus Sphinx with curled wing seated l. on amphora, lying on its side with mouth to l., and, with one exception, raising its further forepaw. No grapes. Plain exergual line beneath which magistrate's name written in full.

Æ. Size about 32·00 mm. Wt. 260–254 grains (16·85–16·46 grammes). Attic tetradrachm.

In exergue ΑΝΤΙΦΩΝ and in field l. ΠΟ. Brit. Mus. and Hunterian Coll.

(This issue is the only one I have observed in which some of the details of the reverse are the same as those of the last type. The throne has a back, its legs consist partly of Sphinxes, and there is a footstool. There is also no exergual line.)

In exergue ΑΛΚΙΜΑΧΟΣ Coll. E. T. Newell.

In exergue ΓΝΩΣΙΣ and in field l. ΠΟ. Berlin Cabinet. [Pl. V. 14.]

In exergue ΔΙΟΓΝΗΤΟΣ Brit. Mus.

In exergue ΕΥΚΛΕΩΝ Brit. Mus. and Berlin Cabinet.

In exergue ΕΥΚΛΗΣ and in field l. ΠΟ. Berlin Cabinet.

In exergue ΖΗΝΟΔΟΤΟΣ and in field l. ΑΡ. Brit. Mus.

(In this specimen the Sphinx, while seated on an amphora like the rest, does not raise its forepaw.)

In exergue ΗΡΑΚΛΕΙΤΟΣ Brit. Mus. and Coll. E. T. Newell.

In exergue ΚΡΑΤΩΝ and in field l. ΠΟ. Brit. Mus. and Hunterian Coll.

In exergue ΛΑΣΩΝ and in field l. ΑΡ. Brit. Mus.

(No dotted border on obverse.)

In exergue ΜΕΝΕΚΡΑΤΗΣ Vienna Cab. and Hunterian Coll., No. 133. [Pl. V. 13.]

In exergue ΞΕΝΩΝ and in field l. ΠΟ (?). Berlin Cabinet.

In exergue ΞΟΥΘΟΣ and in field l. ΠΟ. Brit. Mus. and Berlin Cabinet.

In exergue ΟΙΝΟΠΙ[Δ]ΗΣ Copenhagen, Müller's No. 1113.

In exergue ΤΙΜΟΔΑΜΑΣ Brit. Mus.

In exergue ΤΙΜΩΝ Mionnet's No. 177.

In exergue ΦΙΛΙΠΠΟΣ and in field l. ΠΟ. Berlin Cabinet.

In exergue ΧΑΡΗΣ Berlin Cabinet.

The drachms that I would attribute to the early portion of this period are the following:

61. *Obv.*—Sphinx of good late style seated l. on plain exergual line; wing curled in naturalistic manner like type No. 57 β; hair rolled and no curls on neck; only one foreleg showing. The tail bears a tuft, breast not indicated. Before Sphinx bunch of grapes. Border of dots.

Rev.—Amphora with wide neck and pointed tip between magistrate's name r. and ΧΙΟΣ l., sometimes symbol also l. The whole in vine-wreath tied below showing leaves and tendrils. Slightly concave field.

Æ. ΑΓΓΕΛΙΣΚΟΣ *Rev.* No symbol.
↑↑ 20·00 mm. 64·5 grains (4·18 grammes). Attic drachm. Athens Cabinet. Published *J. Int. d'Arch. Num.*, 1909–10, p. 44.

ΛΕΩΜΕΔΩΝ *Rev.* Prow in field l.
↑? 22·50 mm. 63·6 grains (4·12 grammes). Attic drachm. Metr. Mus., New York, U.S.A., ex J. Ward's Coll., No. 681, G. F. Hill's Cat. [Pl. VI. 1.]

↑? 19·00 mm. 65·0 grains (4·21 grammes). Attic drachm. Ex Philipsen Coll., No. 2252, Hirsch's Sale Cat., 1909. (Same dies as preceding.)

↑? 21·50 mm. 64·5 grains (4·18 grammes). Attic drachm. R. Jameson's Coll., No. 1523 of his Cat., 1913. This specimen also has a bunch of grapes with stalk to l. under vine-wreath on *rev.*

The following are the coins composing the former of the two main bronze series attributed to this period :

62 *a. Obv.*—Same as preceding, except that Sphinx is seated r. and that the symbol in front of it is varied. There is also no border around type.

Rev.—Amphora with wide neck and pointed tip, though in some instances the pear-shaped tip of previous issues is seen, with magistrate's name r. and ΧΙΟΣ l. A symbol generally in field l., sometimes both l. and r. Frequently concave field.

Æ. ↑↑ 19·00–16·00 mm. 77·9–54·0 grains (5·05–3·50 grammes). Fourteen pieces examined, of which four countermarked tripod.

ΑΡΓΕΙΟΣ *Obv.* Ear of corn. *Rev.* Bunch of grapes l. Paris Cab., No. 5013. [Pl. VI. 2.

Coins with this name are sometimes found struck over previous series with Sphinx to l.

↑↑ 18·00–16·00 mm. 75·3–60·0 grains (4·88–3·89 grammes). Twelve pieces examined, of which three countermarked tripod.

ΑΡΙΣΤΟΜ[ΑΧΟΣ?] *Obv.* 8-rayed star, sometimes enclosed in circle. *Rev.* Prow to r. on l.

↑↑ 20·00–17·00 mm. 50·9–40·6 grains (3·30–2·63 grammes). Ten pieces examined, of which three countermarked tripod.

ΑΣΠΑΣΙΟΣ *Obv.* Bunch of grapes. *Rev.* Ear of corn l. and star r. Paris Cab. [Pl. VI. 5.] *Obv.* Bunch of grapes and star. *Rev.* Ear of corn l. Solitary specimen in library at Chios. *Obv.* Bunch of grapes. *Rev.* Ear of corn l.

↑↑ 17·50–16·50 mm. 65·1–57·1 grains (4·22–3·70 grammes). Twelve pieces examined, of which three countermarked tripod.

ΓΝΩΣΙΣ *Obv.* 8-rayed star. *Rev.* Caduceus l.

↑↑ 19·00–17·00 mm. 60·8 grains (3·94 grammes). Six pieces examined, of which three countermarked tripod.

ΔΗΜΗΤΡΙΟΣ *Obv.* Bunch of grapes. *Rev.* Ear of corn l. *Obv.* No symbol. *Rev.* Ear of corn l.

(1 spec. ↑↓) ↑↑ 19·75–17·00 mm. 67·9–40·1 grains (4·40–2·60 grammes). Thirteen pieces examined, of which four countermarked tripod.

ΗΓΕΜΩΝ *Obv.* Ear of corn. *Rev.* Bunch of grapes l.

(1 spec. ↑↓) ↑↑ 19·75–17·00 mm. 67·4–39·4 grains (4·37–2·55 grammes). Sixteen pieces examined, of which three countermarked tripod.

ΗΡΟΣΤΡΑ[ΤΟΣ] *Obv.* Ear of corn. *Rev.* Bunch of grapes l. Paris Cab., No. 5032. [Pl. VI. 3.]

Coins with this name are sometimes found struck over previous series with Sphinx to l. (See type No. 56 γ with ΗΡΙΔΑΝΟΣ.)

↑↑ 22·00–17·00 mm. 58·8–47·1 grains (3·81–3·05 grammes). Thirteen pieces examined, of which six countermarked tripod.

ΘΕΡΣΗΣ *Obv.* Ear of corn. *Rev.* Bunch of grapes l.

Coins with this name are sometimes found struck over previous series with Sphinx to l.

↑↑ 20·25–17·50 mm. 60·0–45·1 grains (3·89–2·92 grammes). Seventeen pieces examined, of which seven countermarked tripod.

ΙΚΕΣΙΟΣ *Obv.* Ear of corn. *Rev.* Bunch of grapes l.

One specimen with this name. No. 5042, at Paris, possibly struck over coin of previous series with Sphinx to l.

↑↑ 18·75–16·50 mm. 68·8–45·4 grains (4·46–2·94 grammes). Eighteen pieces examined, of which seven countermarked tripod.

ΚΗΦΙΣΙΔΗ[Σ] *Obv.* Bunch of grapes. *Rev.* Race-torch l. Paris Cab. [Pl. VI. 4.] *Obv.* Bunch of grapes. *Rev.* Race-torch l. and wing r. *Obv.* No symbol. *Rev.* Ear of corn l.

↑↑ 18·00–16·00 mm. 84·0–48·0 grains (5·44–3·11 grammes). Nineteen pieces examined, of which five countermarked tripod.

ΚΥΛΛΑΝΟΣ *Obv.* Bunch of grapes. *Rev.* Race-torch l. *Obv.* Bunch of grapes. *Rev.* Race-torch l. and wing r. *Obv.* 8-rayed star. *Rev.* Prow to l. on l.

↑↑ 19·00–16·00 mm. 71·9–45·5 grains (4·66–2·95 grammes). Eighteen pieces examined, of which six countermarked tripod.

ΛΑΜΠΡΟΣ *Obv.* Bunch of grapes. *Rev.* Race-torch l. *Obv.* Bunch of grapes. *Rev.* Race-torch l. and wing r. *Obv.* Race-torch. *Rev.* No symbol. Solitary specimen at Vienna.

↑↑ 20·00–17·00 mm. 80·1–44·0 grains (5·19–2·85 grammes). Twenty pieces examined, of which one countermarked tripod, at Paris.

ΛΕΩΜΕΔΩ[Ν] *Obv.* Ear of corn. *Rev.* No symbol. *Obv.* Bunch of grapes. *Rev.* Ear of corn l. *Obv.* Bunch of grapes. *Rev.* Ear of corn l. and 8-rayed star r. *Obv.* No symbol. *Rev.* Ear of corn.

↑↑ 19·00–16·00 mm. 60·5–5·89 grains (3·92–3·82 grammes). Ten pieces examined, of which three countermarked tripod.

ΠΟΛΙΑΝΘΟΣ *Obv.* Ear of corn. *Rev.* No symbol.

↑↑ and ↑↓ 18·00–16·00 mm. 56·00 grains (3·63 grammes). Eleven pieces examined, of which three countermarked tripod.

ΣΤΑΦΥΛΟ[Σ] *Obv.* 8-rayed star. *Rev.* Prow to l. on l., and on one specimen at Paris prow downwards l.

↑↑ 19·00–16·00 mm. 59·1–52·0 grains (3·83–3·37 grammes). Ten pieces examined, of which one countermarked tripod, at Berlin.

ΤΗΛΕΜΑΧ[ΟΣ] *Obv.* 8-rayed star. *Rev.* Caduceus l.

↑↑ 19·00–17·00 mm. 73·0 grains (4·73 grammes). Nine pieces examined, of which one countermarked tripod, at Copenhagen.

ΤΙΜΑΝΔΡΟΣ *Obv.* Bunch of grapes. *Rev.* Ear of corn l. *Obv.* Bunch of grapes. *Rev.* Ear of corn l. and star r.

↑↑ 17·25–15·50 mm. 56·0–45·1 grains (3·63–2·92 grammes). Ten pieces examined, of which two countermarked tripod.

ΤΙΜΟΚΛΗ[Σ] *Obv.* 8-rayed star. *Rev.* Caduceus l. *Obv.* 8-rayed star. *Rev.* No symbol.

↑↑ 19·00–16·25 mm. 61·1–49·4 grains (3·96–3·20 grammes). Nine pieces examined, of which three countermarked tripod.

ΦΟΙΝΙΞ *Obv.* Ear of corn. *Rev.* No symbol.

62 *β*. *Obv.*—Similar to last, except that Sphinx is of less pleasing style, shows curls hanging on neck in addition to the rolled head-dress, and has the wing feathers less freely treated. The human breast is also more clearly defined. Before Sphinx club, handle upwards, and between its legs, generally, the letter Γ; rarely, Ε and Ι.

Rev.—Similar to last, except that amphora generally has curved handles and thin neck, and sometimes shows the 'lip' characteristic of later issues. In field l. rudder, blade upwards. Frequently concave field.

Æ. ↑↑ 19·00–16·00 mm. 55·1–41·7 grains (3·57–2·70 grammes). Seventeen pieces examined, of which five countermarked tripod.

ΚΑΥΚΑΣΙΩΝ *Obv.* one specimen without Γ at Paris. *Rev.* one specimen with torch in place of rudder recorded by Kofod Whitte ex Cat. d'Ennery, No. 270.

↑↑ 19·00–16·50 mm. 80·1–52·9 grains (5·19–3·43 grammes). Seventeen pieces examined, of which five countermarked tripod.

ΜΕΝΕΣΘΕΥ[Σ] *Obv.* Both with and without Γ, sometimes retrograde, as in Hunterian Coll., No. 44. [Pl. VI. 10.] One specimen at Paris has I between feet of Sphinx, and Kofod Whitte records E as well. *Rev.* The ear of corn symbol in place of rudder is said by K. Whitte to occur on a specimen in Mus. Knobelsd. (Sestini).

↑↑ 19·00–17·00 mm. 65·1–56·0 grains (4·22–3·63 grammes). Thirteen pieces examined, of which five countermarked tripod.

ΣΩΣΤΡΑΤ[ΟΣ] *Obv.* Both with and without Γ. *Rev.* Rudder. [Pl. VI. 9.] *Obv.* Bunch of grapes. *Rev.* Race-torch. Solitary specimen at Athens.

The drachms that may have preceded or accompanied the last sub-type are the following:

63 *a*. *Obv.*—Sphinx of inferior style seated l. on plain exergual line; wing curled in naturalistic manner, but less freely treated than in type No. 61; hair rolled without curls on neck; only one foreleg showing. The tail bears a tuft, and the breast is indicated. Before Sphinx bunch of grapes. Border of dots.

Rev.—Amphora with wide neck, pointed tip, and sloping shoulders, between magistrate's name l. or r. and ΧΙΟΣ r. or l. Sometimes symbol in field l. The whole in vine-wreath tied below, of more formal design than in type No. 61, showing only leaves, and terminating above in two thyrsus-like knobs. Slightly concave field in most specimens.

Æ. ↑↑ 17·00 mm. 57·4 grains (3·72 grammes). Attic drachm. Leake Coll., Fitzwilliam Mus., Cambridge.

ΑΛΚΙΜΑΧΟΣ r. of amphora. No symbol on reverse. [Pl. VI. 8.]

↑↑ 21·00 mm. 56·2 grains (3·64 grammes). Attic drachm. Paris Cabinet, No. 4999.

ΔΩΡΟΘΕΟΣ l. of amphora. Trident, prongs upwards, in field l.

↑↑ 20·50 mm. 61·6 grains (3·99 grammes). Attic drachm. Paris Cabinet, Waddington, 2012.

ΕΣΤΙΑΙΟΣ r. of amphora. Prow to r. in field l.

↑↑ 19·75 mm. 60·5 grains (3·92 grammes). Attic drachm. Paris Cabinet, No. 5005.

ΞΗΝΩΝ No grapes *obv.*, name r. of amphora. Club (?), handle upwards, in field l. [Pl. VI. 7.]

63 *β*.—Similar to preceding, but type to r.

Æ. ↑↑ 19·50 mm. 56·6 grains (3·67 grammes). Attic drachm. Paris Cabinet, No. 5007.

↑↑ 18·00 mm. 59·3 grains (3·84 grammes). Attic drachm. Brit. Mus. Cat. Ionia, Chios, No. 52.

Name illegible, r. of amphora. Cantharus in field l. (both coins from same dies).

The bronze coins of small module that I would attribute to the same period as types Nos. 59 *α*–63 *β* are the following:

64. *Obv.*—Sphinx seated l., but identical in all other respects with the best executed pieces of type No. 62 *a*.

Rev.—Amphora as in type No. 62 *a* between magistrate's name r. and ΧΙΟΣ l. Concave field.

Æ. ↑↑ 14·00 mm. Wt.? Collection in Public Library, Chios.

ΕΡΜΩΝΑ[Ξ] No symbol either side.

↑↑ 13·00 mm. Wt.? Collection of Sir H. Weber. [Pl. VI. 6.]

[Λ]ΕΩΜΕΔ[ΩΝ] Ear of corn in field l. of *rev.* Concave field.

65. *Obv.*—Sphinx seated r. on plain exergual line, in all respects like the larger pieces of type No. 62 *a*. In front, sometimes, bunch of grapes.

Rev.—Amphora of type No. 62 *a* between magistrate's name r. and ΧΙΟΣ l. In field l., sometimes, bunch of grapes.

Æ. ↑↑ 11·00 mm. Wt.? In private collection at Chios.

ΑΠΟΛΛ[ΩΝΙΔΗΣ] Bunch of grapes in field l. of *rev.*

↑↑ 10·00 mm. Wt.? In private collection at Chios.

ΑΡΙΣΤ[ΟΜΑΧΟΣ] No symbol either side.

↑↑ 11·50 mm. 11·4 grains (0·74 gramme). My collection. [Pl. VI. 12.]

↑↑ 10·00 mm. 13·4 grains (0·87 gramme). Berlin Cabinet.

ΕΡΜΩΝ[ΑΞ] Bunch of grapes on *obv.*

↑↑ 10·00 mm. 11·9 grains (0·77 gramme). Brit. Mus. Cat. Ionia, Chios, No. 98. [Pl. VI. 11.]

↑↑ 11·00 mm. 16·8 grains (1·09 gramme). Berlin Cabinet.

ΘΕΟΔΩ[ΡΟΣ] Bunch of grapes in field l. of *rev.*

↑↑ 10·25 mm. 9·1 grains (0·59 gramme). My collection.

↑↓ 9·75 mm. 9·95 grains (0·645 gramme). My collection.

ΛΥΣΙΚΡ[ΑΤΗΣ] No symbol either side in (1), bunch of grapes in field l. of *rev.* in (2).

↑↑ 11·00 mm. 13·4 grains (0·87 gramme). Athens Cabinet.

↑↑ 10·00 mm. 16·5 grains (1·07 grammes). Berlin Cabinet.

ΣΚΥΜ[ΝΟΣ] Bunch of grapes on *obv.*

↑↑ 10·00 mm. 14·6 grains (0·93 gramme). My collection.

↑↑ 11·00 mm. 17·4 grains (1·13 grammes). Brit. Mus. Cat. Ionia, Chios, No. 99.

ΣΤΑΦΥ[ΛΟΣ] Bunch of grapes on *obv.*

↑↑ 11·00 mm. 10·2 grains (0·66 gramme). Athens Cabinet.

[Τ]ΙΜΑΝΔΡ[ΟΣ] Bunch of grapes in field l. of *rev.*

↑↓ 9·75 mm. 10·8 grains (0·70 gramme). Paris Cabinet, No. 5112.

[Φ]ΑΙΝΟ - - No symbol visible either side.

The next group of drachms, referred to above as possibly coinciding with the period 133–88 B.C., is the following:

66 *α*. *Obv.*—Sphinx seated l. as in type No. 63 *α*, but holding up bunch of grapes in further forepaw.

Rev.—Long thin amphora in formal vine-wreath, like that of type No. 63 *α*, with ΑΝΔΡΩΝΑΞ r. and ΧΙΟΣ l. but no symbol.

Æ. ↑? 19·50 mm. 57·3 grains (3·71 grammes). Attic drachm. Paris Cabinet, No. 4993.

[Pl. VI. 13.]

66 *β*. *Obv.*—Sphinx of similar but ruder style seated l. on plain exergual line. In front bunch of grapes. No dotted border.

Rev.—Amphora of varying design between magistrate's name r. or l. and ΧΙΟΣ l. or r. Sometimes symbol in field. The whole in vine-wreath tied below and terminating above in two thyrsus-like knobs, but of more florid design than in types Nos. 63 *a* and 66 *a*.

Æ. ↑↑ 21·00 mm. 56·3 grains (3·65 grammes). Attic drachm. Berlin Cabinet.

↑? 19·00 mm. 55·4 grains (3·59 grammes). Attic drachm. Roussopoulos Coll., No. 3285, Hirsch's Sale Cat. XIII.

ΑΠΕΛΛΑΣ r. of amphora. No symbol. The Berlin specimen is countermarked on reverse with draped and helmeted bust of Athena to r.

↑↑ 18·00 mm. 51·7 grains (3·35 grammes). Attic drachm. Brit. Mus. Cat. Ionia, Chios, No. 46.

↑↑ 18·50 mm. 62·5 grains (4·05 grammes). Attic drachm. Paris Cabinet, No. 4995.

↑↑ 18·75 mm. 50·3 grains (3·26 grammes). Attic drachm. Munich Cabinet.

ΑΡΓΕΙΟΣ l. of amphora in (1), and r. in (2) and (3). No symbol.

(One spec. ↑↓) ↑↑ 20·50–17·00 mm. 61·8–58·0 grains (4·01–3·76 grammes). Attic drachms. Brit. Mus. Cat. Ionia, Chios, Nos. 47–8, Vienna Cabinet, and my collection.

ΑΡΤΕΜΙΔΩΡ$^{\Sigma}_{\bullet}$ r. of amphora. Thyrsus adorned with fillets in field l. (This issue has a dotted border on *obv.* unlike the rest of the group.)

↑↑ 18·00 mm. 59·9 grains (3·88 grammes). Attic drachm. Paris Cabinet (not numbered).

↑↑ 19·25 mm. 43·5 grains (2·82 grammes). Æ. Copper core of ancient forgery. My collection.

ΕΡΜΟΦΑΝΤΟΣ l. of amphora in (1), and r. in (2). In both aplustre in field l.

↑↑ 19·00–18·00 mm. 54·6–50·0 grains (3·54–3·24 grammes). Attic drachms. Paris Cabinet, No. 4996, pierced. [Pl. VI. 16.] Brit. Mus. Cat. Ionia, Chios, No. 49, and Berlin Cabinet.

↑↑ 19·00–18·00 mm. 61·0–53·4 grains (3·95–3·46 grammes). Paris Cabinet, Nos. 5000–1, Hunterian Coll., No. 6, and Berlin Cabinet.

ΖΗ ΝΙΣ l. of amphora with lip. In space between letters eagle stands to r. on amphora in (1), and caps of Dioscuri with dots above them representing stars in (2). (The corn-grain noted by Brit. Mus. Cat., No. 49, in field r. of reverse, is a bunch of grapes which figures as part of the wreath in all issues with this name.)

↑↑ 20·00 mm. 55·3 grains (3·58 grammes). Attic drachm. Brit. Mus. Cat. Ionia, Chios, No. 51.

ΗΛΙΟΔΩΡΟΣ r. of amphora. One-handled vase in field l.

↑↑ 20·75 mm. 57·1 grains (3·70 grammes). Attic drachm. Paris Cabinet, Waddington, No. 2014. [Pl. VI. 14.]

↑↑ 18·50 mm. 59·0 grains (3·82 grammes). Attic drachm. Berlin Cabinet.

ΜΗΤΑΣ r. of amphora. 8-rayed star in field l. between ΧΙ and ΟΣ. (Obverse die of (1) same as the two coins described above with name ΕΡΜΟΦΑΝΤΟΣ.)

66 *ββ*. *Obv.*—Same type to r. No border.

Rev.—Amphora of type shown in Pl. VI. 16, in wreath like Pl. VI. 14, with ΘΕΥΜΝΙΣ r. and ΧΙ ΟΣ l. In space between letters of latter full-length figure of Dionysus (?) facing, holding staff in l. and bunch of grapes in r.

Æ. ↑↑ 21·00 mm. 56·6 grains (3·67 grammes). Attic drachm. Berlin Cabinet, first published in *Hermes* vii. 50.

66 γ. *Obv.*—Sphinx of late style seated l. on plain exergual line; wing conventionally twisted into a tight curl; hair gathered into knot behind with a long curl hanging on neck; human breast clearly defined, and tail bears a tuft. Before Sphinx bunch of grapes. Border of coarse dots.

Rev.—Long thin amphora with pointed tip between magistrate's name r. and ΧΙ ΟΣ l. In field l., generally, a symbol. Border of coarse dots.

Æ. ↑↑ 21·00 mm. 61·4 grains (3·98 grammes). Attic drachm. Paris Cabinet, No. 4994. [Pl. VI. 15.]

↑↑ 19·50 mm. 57·5 grains (3·79 grammes). Attic drachm. Munich Cabinet.

↑↑ 19·50 mm. 49·5 grains (3·21 grammes). Attic drachm. McClean Coll., Fitzwilliam Mus., Cambridge.

ΑΠΕΛΛΗΣ r. of amphora; winged caduceus in field l. in (1) and (2). Name l. of amphora; winged caduceus in field r. in (3).

Generally ↑↑, but three specimens have ↑← 18·00–21·50 mm. 61·9–49·4 grains (4·01–3·20 grammes). Attic drachms. Brit. Mus. Cat. Ionia, Chios, Nos. 54–5, &c.

ΔΕΡΚΥΛΟΣ r. of amphora. Cornucopiae in field l.

↑? 18·00 mm. 54·0 grains (3·50 grammes). Attic drachm. Coll. Imhoof-Blumer, published *Rev. Suisse*, 1895, p. 239.

↑? 19·50 mm. 55·4 grains (3·59 grammes). Attic drachm. Coll. B. Yakountchikoff.

↑↑ 19·00 mm. 56·3 grains (3·65 grammes). Attic drachm. Berlin Cabinet.

ΚΟΡΩΝΟΣ r. of amphora. No symbol. (These coins have the later type of amphora seen on Pl. VI. 16. In No. 1 only the Sphinx wears a *modius*, and the Ω is as rendered above; but Nos. 2 and 3, and one other in Mr. E. T. Newell's Coll., show the earlier form.)

↑↑ 19·00 mm. 55·1 grains (3·57 grammes). Attic drachm. Berlin Cabinet.

ΜΕΝΕΚΛΗΣ r. of amphora. Two 8-rayed stars also in field r.

↑↑ 18·50 mm. 57·3 grains (3·71 grammes). Attic drachm. McClean Coll., Fitzwilliam Mus., Cambridge.

↑↑ 18·50 mm. 47·8 grains (3·10 grammes). Attic drachm. Paris Cabinet, No. 5004.

↑↑ 19·00 mm. 56·0 grains (3·63 grammes). Attic drachm. Hunterian Coll., No. 8.

ΜΗΤΡΟΔΩ
ΡΟΣ r. of amphora. Aplustre in field l. of *rev.* and prow to l. in field l. of *obv.* beneath the bunch of grapes. (Nos. 1 and 2 have the magistrate's name written ΜΗΤΡΟΔΩ . . . as well as another specimen at Berlin. Only in the Glasgow specimen does the name appear as above. These coins also have the later type of amphora as described under ΚΟΡΩΝΟΣ.)

↑↑ 19·00 mm. 54·0 grains (3·50 grammes). Attic drachm. Berlin Cabinet. Published *Griech. Münzen*, No. 393.

ΣΤΑΦΥΛΟΣ r. of amphora. Winged caduceus in field l. (The later type of amphora appears in this issue as well.)

66 δ. *Obv.*—Same as preceding, though of somewhat ruder style. Border of dots.

Rev.—Amphora of varying design between magistrate's name r. and ΧΙΟΣ l. In field l. symbol. The whole in vine-wreath tied below.

Æ. ↑↑ 19·00 mm. 54·5 grains (3·53 grammes). Attic drachm. Berlin Cab. Published *Griech. Münzen*, No. 388.

ΓΟΡΓΙΑΣ l. of amphora, which has the form shown on Pl. VI. 16, and, as in that case, the symbol here is an eagle seated to r. upon the amphora.

↑↑ 18·00 mm. 57·3 grains (3·71 grammes). Attic drachm. Brit. Mus. Cat. Ionia, Chios, No. 50.

ΖΗΝΟΔΩΡΟΣ r. of amphora, which has the form shown on Pl. VI. 15, and the symbol is a palm-leaf, stem upwards. The wreath is of an unusual form for this group, the upper ends terminating in vine-leaves.

The bronze coins that I regard as contemporaries of the drachms just described are the following:

67. *Obv.*—Sphinx of late style seated r. (rarely l.) on exergual line of varying form: hair-dressing and wing like the drachms of type No. 66 γ. Before Sphinx bunch of grapes, which is generally held in its further forepaw. Sometimes border of dots, and, when exergue has a plain line, a prow below bunch of grapes.

Rev.—Amphora of late type with lip, as on the drachms of No. 66 β with ΖΗΝΙΣ &c., to r. of which magistrate's name, and to l. ΧΙΟΣ. The whole in wreath tied below, generally composed of vine-leaves, and terminating, as in previously described coins, in two thyrsus-like knobs above. Very often an incuse circle or concave field.

Æ. ↑↑ and ↑↓ 15·00–13·50 mm. 37·5 grains (2·43 grammes). Athens Cabinet, found in Delos, *J. Int. d'Arch. Num.*, 1911, p. 89, Berlin and Vienna Cabinets.

ΑΘΗΝΙΚΩΝ Sphinx seated on plain line, thyrsus, or winged caduceus.

↑↑ 15·00–12·00 mm. 37·7–35·5 grains (2·44–2·30 grammes). Brit. Mus. Cat. Ionia, Chios, No. 85, Athens, and Paris.

ΑΙΣΧΙΝΗΣ Dotted border *obv.* Sphinx seated on winged caduceus and club combined. One specimen at Paris has no dots *obv.*, but an ivy-wreath round *rev.* [Pl. VI. 17.]

↑↑ 14·00 mm. 32·0 grains (2·07 grammes). Brit. Mus. Cat. Ionia, Chios, No. 86, and Athens Cabinet.

ΑΠΕΛΛΗΣ Sphinx seated on winged caduceus and club combined.

↑↑ 13·50–12·50 mm. 42·4 grains (2·75 grammes). Brit. Mus. Cat. Ionia, Chios, No. 87, Paris Cabinet, and Coll. B. Yakountchikoff.

ΑΠΟΛΛΩΝ[ΙΔΗΣ] Sphinx seated on club.

↑↑ 14·50–13·50 mm. 46·0–33·9 grains (2·98–2·20 grammes). Brit. Mus. Cat. Ionia, Chios, No. 88, Athens Cabinet, found in Delos, *J. Int. d'Arch. Num.*, 1911, p. 79, Paris, illustrated [Pl. VI. 18], Vienna, and Munich Cabinets.

ΑΡΤΕΜΗΣ Sphinx seated on serpent staff. (One specimen at Athens has a palm-wreath round *rev.* All the rest have the usual vine-wreath.)

↑? 15·00 mm. Wt. ? Rollin and Feuardent's Cat., 1864, no. 5442.

ΑΡΤΕΜΙΔ[ΩΡΟΣ] Exergual line?

↑↑ 15·75–14·00 mm. 34·4 grains (2·23 grammes). My collection, and a dealer's stock in Chios, 1913.

ΓΟΡΓΙΑΣ Sphinx seated on plain exergual line with prow r. below bunch of grapes.

↑↑ 13·50–12·50 mm. 37·8–29·5 grains (2·45–1·91 grammes). Brit. Mus. Cat. Ionia, Chios, No. 90, Paris Cabinet, my collection, and Coll. E. T. Newell.

ΔΗΜΟΚΛΗΣ Sphinx seated on plain exergual line with prow (?) r. below bunch of grapes.

↑↑ 13·00 mm. Wt. ? Athens Cabinet, found in Delos and published *J. Int. d'Arch. Num.*, 1911, p. 93, and Munich Cabinet.

ΔΗΜΟΚΡΑ[ΤΗΣ] Sphinx seated on plain exergual line. No symbol.

↑? 12·00 mm. Wt. ? Kofod Whitte, p. 64, No. 93, e Mus. Tòchon. (Sestini).

ΔΙΟΜΗΔΗΣ Sphinx seated l. on caduceus.

(One spec. has ↑←) ↑↑ 15·00–13·00 mm. 31·5–27·8 grains (2·04–1·80 grammes). Brit. Mus. Cat. Ionia, Chios, No. 91, &c.

ΕΥΞΕΝΟΣ Sphinx seated on club. One specimen at Athens has a dotted border on *obv.*

↑↑ and ↑← 14·50–12·75 mm. 47·8–38·3 grains (3·10–2·48 grammes). Athens, Munich, illustrated [Pl. VI. 19], Vienna, and Berlin Cabinets.

ΚΛΕΙΔΗΣ Sphinx seated l. on caduceus or palm-leaf.

(One spec. has ↑←) ↑↑ 15·00–13·50 mm. 50·8–42·9 grains (3·29–2·78 grammes). Brit. Mus. Cat. Ionia, Chios, No. 92, &c.

ΜΗΝΟΓΕΝΗ[Σ] Sphinx seated on plain line, club, or winged caduceus.

(One spec. has ↑←) ↑↑ 15·50–13·25 mm. 53·9–29·8 grains (3·49–1·93 grammes). Brit. Mus. Cat. Ionia, Chios, No. 93, &c.

ΜΗΝΟ•Ι•ΙΛΟΣ Sphinx seated on plain line or on serpent staff, and specimens in Coll. B. Yakountchikoff and Copenhagen (K. Whitte's No. 128) have head-dress of Isis in field l. of *obv.*

↑↑ 15·00–12·50 mm. 57·2–31·5 grains (3·77–2·04 grammes). Brit. Mus. Cat. Ionia, Chios, No. 94, Berlin Cabinet, and Coll. E. T. Newell.

ΜΗΤΡΟ$\frac{\Delta\Omega}{\text{ΡΟΣ}}$ Sphinx seated on plain exergual line with prow r. below bunch of grapes. (The inscription is not always as rendered here, in many specimens the upper line only being given (see contemporary drachms), and in one case at Berlin the last three letters appearing on the l. of the amphora.)

↑↑ 14·00–13·50 mm. 29·6–28·0 grains (1·92–1·81 grammes). Paris Cabinet, Coll. E. T. Newell, and dealer's stock in Chios, 1913.

ΜΙΚΚΑΛΟΣ Sphinx seated on serpent staff.

(One spec. has ↑↓) ↑↑ 14·00–13·25 mm. 46·8 grains (3·03 grammes). Brit. Mus. Cat. Ionia, Chios, No. 95, Athens, found in Delos, *J. Int. d'Arch. Num.*, 1911, p. 79, and Vienna Cabinets.

ΜΙΛΤΙΑΔΗΣ Sphinx seated on serpent staff.

↑↑ 15·00–13·50 mm. 42·5 grains (2·75 grammes). Athens and Berlin Cabinets.

ΞΑΝΘΙΠΠ[ΟΣ] Sphinx seated on winged caduceus. In field l. of *rev.* head-dress of Isis.

↑↑ 15·00–13·00 mm. 31·5–29·0 grains (2·04–1·88 grammes). Brit. Mus. Cat. Ionia, Chios, No. 96, Athens and Vienna Cabinets.

ΣΤΡΑΤΟΝΙ[ΚΟΣ] Sphinx seated on plain exergual line with aplustre r. and sometimes bunch of grapes as well.

(One spec. has ↑←) ↑↑ 15·50–13·00 mm. 44·75–42·6 grains (2·90–2·76 grammes). Brit. Mus. Cat. Ionia, Chios, No. 97, Berlin, Munich, and Aberdeen Univ. Cabinets.

ΤΡΥ·Ι·ΩΝ Sphinx seated on club with cantharus below its upraised forepaw. No grapes.

The small bronze coins that may be looked upon as roughly contemporary with the above are the following:

68. *Obv.*—Sphinx of late style seated l. or r. on plain exergual line, generally without grapes; wings curled as in types Nos. 66γ and 67; only one foreleg showing and never raised.

Rev.—Amphora with lip between magistrate's name r. and ΧΙΟΣ l. No wreath or border on either side. No symbol.

Æ. ↑↓ 8·75 mm. 21·9 grains (1·42 grammes). Berlin Cabinet.

ΑΝΤΙΚΛ[ΗΣ?] Sphinx to l. Bunch of grapes in field l. of *obv.*

↑↓ 10·50 mm. 15·7 grains (1·02 grammes). Berlin Cabinet.

[Α]ΡΓΕΙΟΣ Sphinx to l.

↑↑ 10·75 and 10·00 mm. 17·9 and 15·1 grains (1·16 and 0·98 gramme). My collection [Pl. VI. 20] and Berlin Cabinet.

HPAIOΣ Sphinx to l.

↑↓ 10·50 mm. 18·1 and 15·0 grains (1·17 and 0·97 gramme). Berlin Cabinet, both specimens.

HPOKPAT[HΣ] Sphinx to r. (The Berlin specimens only read HPOKPA . . ., but the T is supplied by Hirsch's Sale Cat. of Philipsen Coll., No. 2254 (part of), evidently describing the same coin.)

(Three specimens have ↑←) ↑↑ 10·00–9·25 mm. 17·75–11·0 grains (1·15–0·71 gramme). Athens, Berlin, and Munich Cabinets, &c.

ΦANAΓO[PHΣ or PAΣ] Sphinx to r. A bunch of grapes appears on *obv.* of two specimens.

↑↑ 9·50 mm. 12·4 grains (0·80 gramme). Coll. E. T. Newell.

[E]K . OΔ - - Sphinx to l.

No. 59 *a*. The style of these tetradrachms accords with the general remarks made by Müller on his Class V.

The Sphinx symbol, their distinguishing feature, is of uniform type, and is never represented here with one raised forepaw as on the later coins; and it may be said to resemble, in its broader aspect, the Sphinx of types Nos. 61–2 and even Nos. 56–7. It is just as much a Chian Sphinx, in other words, as the one seen on the later issues of tetradrachms, about which no doubt has ever been raised because of the Dionysiac emblems that accompany it. The magistrates' names are indicated by single letters or simple monograms, the latter consisting as a rule of three letters at the most. I am not

contemplating the possibility that the single letters may represent the years since the issues began, as their appearance is opposed to such a supposition.

Two magistrates generally seem to have been represented on these early tetradrachms, judging from the separate groups of letters or monograms found on them. These are placed either in the field to left or under the throne of the reverse. In one instance, at Berlin, the name is rendered in what looks like an abbreviated though not combined form thus, $\frac{A\Sigma}{X}$. As, however, these letters might just as easily represent two magistrates as one, I am not including the group AΣX - - among the incomplete names, although this has sometimes been done.[83]

Occasionally the letters are enclosed in a circle Ⓘ and Ⓚ, both taken from coins in the British Museum, and there is one instance of a symbol in addition to the Sphinx. This is a double-headed axe in conjunction with the monogram ⋔, also from the British Museum. Such a subsidiary symbol could hardly have been used if the Sphinx had been the mark of the magistrate and not of the mint. The little Sphinxes that sometimes form part of the throne-legs [**Pl. V. 11 and 12**] also suggest a local origin for the coins, and support the contention that these tetradrachms were really the issues of the state. I am not sufficiently familiar with the Alexandrine tetradrachms in general to say whether Sphinxes occur or not in this position on specimens attributed to other mints, but I have certainly never observed them so used.

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[83] See R. Münsterberg's *Beamtennamen*, &c., p. 108.

The monogram ΘΕ (possibly for ΘΕΡΣΗΣ, type No. 62 *α*) occurs both on this and the next type. The letter Γ, sometimes written retrograde, as in Pl. V. 10, seems to be of a different character from the other single letters placed under the throne, and may refer to the same original as the letters ΠΟ so frequently met with in the field of tetradrachms with names in full [Pl. V. 14]. A similar Γ, sometimes written retrograde, is also seen on the contemporary bronze of type No. 62 *β* [Pl. VI. 10]. This Γ or ΠΟ may possibly represent some particular workshop or branch of the mint, as suggested by Beulé with regard to the late Athenian tetradrachms (*Monnaies d'Athènes*, p. 141)—*Πο*[*λιούχου*], for instance, after Athene Poliuchos, one of the principal deities worshipped at Chios—and may even be the same Π as is found well on in imperial times in the exergue of certain issues of the *dichalkon* and *hemiassarion* denominations. The letters ΑΡ, which occur in the same position as ΠΟ on some of the other tetradrachms with names in full, probably have a similar significance, though I cannot suggest an interpretation for them, and I have not observed their recurrence elsewhere.

The coin in the British Museum with a Sphinx raising its forepaw over a club is unique to the best of my belief, and is still more interesting on account of the connexion it suggests with the three bronze issues that I have assembled under sub-type No. 62 *β*. These all show a club in front of the Sphinx, and, in the majority of cases, the letter Γ between its feet. The letter below the Sphinx of this tetradrachm is Κ, and one of the bronze issues in question bears the name ΚΑΥΚΑΣΙΩΝ.

No. 59 *β*. These coins form an intermediate class from the point of view of Chian numismatics, though according to Müller's arrangement they are grouped with the following type under his Class VI. As Müller observed, they are more spread in fabric and of more careless workmanship and style than the foregoing.

The monograms are more complicated than most of those occurring on type No. 59 *α*, and the Sphinx is represented in various ways. The specimen now at Vienna, on which the Sphinx is depicted holding a bunch of grapes, or raising its forepaw above it, is the only one of the kind known to me, though Müller seems to have observed others. The monogram , from a coin in the British Museum, might, with the help of a little imagination, be resolved into the name ΜΕΝΕΣΘΕΥΣ, or at any rate ΜΕΝΕΣΘ, which is found among the magistrates of the bronze sub-type No. 62 *β*, already referred to more than once. This tetradrachm, unlike the rest of its class, has the letter Σ beneath the throne, and though probably only a coincidence, it is worth while remarking that the remaining name of the bronze group in question is ΣΩΣΤΡΑΤΟΣ.

The existence of this tetradrachm, and of the one mentioned above with the Sphinx holding a club, raises a question of chronological arrangement. Should we regard these pieces of Müller's Class VI with letters or monograms—for the one showing the club is really nearer in style to Class VI than to V—as invariably earlier than those with names or not? If the suggestion now made regarding the possible contemporaneity of these two coins with the three bronze issues of sub-

type No. 62 β be correct, it most certainly constitutes an argument against monograms being considered in every case earlier than names. General considerations of style, on the other hand, support this, for there are differences of treatment that distinguish this subtype No. 59 β from No. 60 quite clearly and consistently, although not of sufficient importance for it to be classed separately according to Müller's arrangement. The bronze group in question is undeniably later than type No. 62 α, and yet we are justified in considering types Nos. 60 and 62 α as of the same date because of the names that they and the corresponding drachms have in common. It is a point that cannot be settled from the facts at present in our possession, but it seems worth while to draw attention to this little piece of evidence affecting it.

No. 60. We now come to the coins bearing names written in full. As will be seen from the detailed description, the throne of Zeus on their reverses is, with one exception, always represented without a back, and the Sphinx, seated on a prostrate amphora, also with one exception, invariably raises its further forepaw. It may thus be said to resemble the Sphinx of types Nos. 66 α and 67. There is also no evidence in this type suggestive of a second magistrate, the only letters in addition to the names being the two groups ΠΟ and ΑΡ, to which reference has already been made.

The list contains eighteen names, of which two, as already observed, are met with on other series that may fairly be considered contemporaries of these tetradrachms. A third name, ΜΕΝΕΚΡΑΤΗΣ, also

occurs as well on one of the drachms, but as this drachm belongs to one of the really late issues it cannot represent the same magistrate.

Of the other names concerned, one, at least, has an undoubted Chian ring. I refer to ΟΙΝΟΠΙ[Δ]ΗΣ, a name that may very well have been formed on that of the national hero Oenopion.[84]. Müller reads the name ΟΙΝΟΠΙΝΗΣ, but the alteration as above seems desirable, especially as ΟΙΝΟΠΙΔΗΣ is known from other sources. Both ΛΑΣΣΩΝ and ΤΙΜΟΔΑΜΑΣ are names unrecorded elsewhere, and of questionable appearance, but there seems no reason to doubt the reading of the coins. ΔΑΣΣΩΝ is suggested instead of the former by Collitz and Bechtel, *Griechische Dialekt-Inschriften*, vol. iii, part 2, No. 5661. The prevalence of names in -ΩΝ, to which attention was drawn under type No. 56, seems to have continued at this period.

As regards the lettering of all the tetradrachms, the forms used in type No. 60 are, on the whole, later than in No. 59 *α* or *β*. Ε is generally Ɛ, except in a few monograms. Ξ appears as Ξ in type No. 59, but as Ζ in No. 60. Θ is always dotted. Ο is always smaller than the letters accompanying it. Π is Ρ or ⌝ in type No. 59, and Π in type No. 60. Σ is usually Ϲ, except in some single letters and monograms of type No. 59, where the form with bars of equal length is found. An early and isolated instance of a lunate *sigma* seems to be provided by one of the monograms (fourth example quoted under type No. 59 *β*) ΓΦ, where the character

[84] See above, p. 10, *Num. Chron.*, 1915. The name Οἰνοπίδης occurs on coins of Erythrae (*Brit. Mus. Cat. Ionia*, No. 138) and of Phygela, near Ephesus (Babelon's *Cat. of Waddington Coll.*, No. 1911).

on the extreme right is inexplicable in any other way. Ω is generally Ω, very rarely Ω in type No. 60, and only a little less so in No. 59.

As a general observation it may be pointed out that the lettering is careless in execution and inferior to that of types Nos. 61–2, but there is no trace anywhere of "apices" or the wedge-shaped terminals to the letters that become the rule from type No. 63 onwards.

The weights are those of a reduced Attic tetradrachm, and correspond perfectly with the drachms described under types Nos. 61 and 63.

No. 61. The few issues that we have belonging to this type are quite distinctive, and, as stated above, are sufficiently removed both in style and detail from the various forms of type No. 57 to make it probable that a gap of at least a few years must stand between them. Furthermore, the rendering both of Sphinx and amphora on these coins is practically identical with that of the same features in the bronze type following immediately after this, which is manifestly later than the bronze issues last described.

The evidence of the lettering, being confined to so few specimens, is hardly sufficient to serve as the basis of an argument. The form of Σ found on the piece with ΑΓΓΕΛΙΣΚΟΣ, however, in which the four bars are of equal length, as in many of the bronze issues of the next type, but unlike those of the earlier type, No. 57, encourages me in thinking that these coins are the contemporaries of the first tetradrachms. As already noted, this form, which may be called an archaism in the second century, also occurs on them.

The prow symbol now appears for the first time. It

will be noticed also that the weights of all the known examples of this type exceed 63·5 grains (4·11 grammes), a point that is only occasionally reached by the subsequent issues.

No. 62 *α*. The large quantities of this type that are available for examination put it on quite a different footing from all others of the Chian series. I am only quoting sources of origin in the cases of specimens illustrated on the plates, since practically all collections possess these coins. I am also only giving their extreme variations of measurement and weight.

There is a striking uniformity of style about these issues considering that they were spread over fifty odd years in all probability. That the work was good, even among the coins of what may be called the middle period of the series, is evident from the well-preserved piece illustrated **Pl. VI. 4.** It is almost as if a last effort were being made to maintain the severe and conservative character of the mint, and, if my contention as to the duration of the period be correct, it certainly succeeded. Including three names belonging to the sub-type No. 62 *β* there are twenty-two in all that have survived. This is a relatively large number for the fifty-seven years concerned compared with those afforded by other periods—Per. VIII, for instance, with twenty-four names to 111 years—but by no means enough to determine the total number of years during which similar work was done, if taken by itself. As already suggested, we get no help from the development of style, there being very little variation between the issues till we reach the sub-type No. 62 *β*. But a hint may, I think, be gained from the following. Among the

details given above it will be observed that some of the names are found in conjunction with two or even three different symbols. Whatever these symbols may mean it will be granted that each one records a separate issue for the particular magistrate concerned. If, then, we count all these separate issues, and assume once more that every issue covers the period of one year, we shall find that we have material to account for thirty-five years. Allowing after that for missing names, several of which can presumably be supplied from the contemporary tetradrachms, drachms, and small bronze coins, the original conclusion does not seem to be far wrong.

Of the names concerned I prefer to restore ΑΡΙΣΤΟΜ - - to ΑΡΙΣΤΟΜΑΧΟΣ rather than to any other of the possible alternatives on the strength of a coin in my possession which reads ΑΡΙΣΤΟΜ/ - -. ΗΡΟΣΤΡΑΤΟΣ for ΗΡΟΣΤΡΑ - - seems certain.[85] ΘΕΡΣΗΣ is a name that is apparently known only from these coins. It is an Ionic form, and probably a pet name for *Θερσίλοχος*. Considering the quantity of pieces extant it is unfortunate that none should have been encountered showing a fuller form than ΚΗΦΙΣΙΔΗ - -. For this ΚΗΦΙΣΙΔΗΣ seems quite a plausible restoration. ΚΥΛΛΑΝΟΣ is an unknown name, but it is quite clear to read on a coin at Berlin, and on one at Paris it appears as ΚΥΛΛΑΝϘ. Otherwise it only occurs much abbreviated, and has been read ΚΥΛΛΑΜ - - (*Brit. Mus. Cat. Ionia, Chios*, Nos. 71–2) and ΚΥΛΛΑΝΔ - -. The latter reading comes

[85] Mionnet's reading ΠΡΟΘ - - (*Suppl.*, vi, p. 396, No. 71) would seem to have been founded on one of the coins bearing this name, or possibly on the later issue with ΜΗΝΟΔΩΡΟΣ.

from Athens, where it is suggested that the complete form should be *Κύλλανδρος*, on the analogy of *Κηφίσανδρος*, as if from a place called *Κύλλα*. ΠΟΛΙΑΝΘΟΣ is also a name for which these coins are the sole authority (see Pape's *Wörterbuch d. Gr. Eigennamen*, ed. 1875). Fick and Bechtel seem to have overlooked it and only give the form *Πολιάνθης*, but a specimen at Paris reads ΠΟΛΙΑΝΘΟΣ quite distinctly. This is the only one known to me, however, in which any letter beyond the Θ can be read.

All the above, together with the issues representing the magistrates *Ἀργεῖος*, *Ἀσπάσιος*, *Γνῶσις*, *Δημήτριος*, *Ἡγέμων*, and *Ἱκέσιος*, belong to the middle period of development as regards style, but the coins with the name *Λάμπρος* are somewhat degraded, and form a link between the foregoing and those grouped separately under the sub-type No. 62 *β*. Those exhibiting the best style will be found noted below.

The lettering of these coins is uniformly good and consistent, and, as in the case of the tetradrachms, there is no trace among them of letters with "apices" or wedge-shaped terminals. The forms used are slightly earlier in some cases than on the tetradrachms. Ξ unfortunately does not appear. Ε is always Ε. I have noted one instance of a barred Θ on a specimen with the name ΠΟΛΙΑΝΘ[ΟΣ] at Berlin, otherwise the series yields nothing but Θ. The Ο is always smaller than the accompanying letters. Π is never Π as on the tetradrachms; it sometimes assumes a transitional form Γ in ΛΑΜΠΡΟΣ, already noted as one of the last of the series, but is generally Γ. Σ varies from Σ to Σ. There is a tendency in Φ for the bar to project both above and below the level of the other letters,

the first appearance, so far, of this stage in the normal development of the letter. The tetradrachms of type No. 60 would no doubt have shown it too if only their engraving and striking had been less careless. Ω is always Ω, and never Ω, as on the tetradrachms. Though it by no means constitutes a proof in itself, this lettering strongly supports my contention that the group under discussion should be attributed to the first half of the second century B.C. The lettering is thoroughly typical of the forms then employed in the eastern portion of the Greek world, as a glance at any series of which the chronology is fairly well established, like that of Ephesus, will show. The fact too that none of these coins was found in the Delos excavations, while specimens of type No. 67 and later ones did occur there, provides us with an approximate limit for the duration of their issue with which the present attribution is in agreement.

The symbols are such a prominent feature of the coinage now, appearing as they do both on obverse and reverse indifferently, that a study of them might be expected to yield some information regarding the methods of the mint. It seems evident, as I have already suggested, that the combination of names and symbols may furnish an indication as to the number of years during which the coins were struck. But, as the laws regulating the Greek mints are so very little known, and as it is highly injudicious to apply any knowledge that we may gain about one city to another, one could not come to any conclusion worth proposing without some new fact of importance. It cannot be said, however, that this series adds anything to the evidence collected by Fr. Lenormant, bearing on the

question of mint officials. The coins only serve to confirm the impression already gained from type No. 57, that there must have been at least two magistrates at Chios who shared the responsibilities of the coinage, since the same name is found associated with two and even three different symbols, and the same symbol or symbols with several different names. W. Fietze supported his thesis with regard to Redende Abzeichen (*Journ. Int. d'Arch. Num.*, 1913, p. 17) by quoting the race-torch accompanying the name ΛΑΜΠΡΟΣ on one of these issues, but, as was observed in the introduction to Per. VIII, there can be no question here of "canting devices". The type might just as easily be called upon to refute the theory, since the bunch of grapes does not happen to appear at all on the issues of the very magistrate, ΣΤΑΦΥΛΟΣ, who might have used it to advantage.

As a matter of fact the bunch of grapes is probably still to be regarded as part of the type, even when it appears on the reverse of the coins, and not as one of the magistrates' symbols. It is never found alone, for instance, and is used or omitted apparently at random. It had already been placed upon the reverse before the question of magistrates' signets arose (see type No. 53[a]), and will be seen again in that position on the small silver of the next century when the employment of symbols seems to have ceased.

The prow has quite a different form here from that which it assumes on the next bronze type, on some of the later drachms, and on most of the imperial bronze. In these cases it no doubt also serves as part of the type and is confined then entirely to the obverse of the coins.

Certain objects among the symbols recur at different periods too far removed from one another to allow that the magistrates who used them were one and the same individual, though they might have belonged to different generations of the same family. This type, for instance, includes the race-torch and corn-ear which first put in an appearance on the drachms of type No. 57, and the latter of which is seen again on a bronze that cannot have been struck before the middle of the first century. The wing had only a short vogue apparently, but the club, caduceus, and rudder remained in use till early imperial times, and the star till the last days of the mint. On the other hand, the presence of the same symbol on coins of dissimilar type often helps in showing that they were probably contemporaries. Of such a nature was the club on one of the tetradrachm issues and on the bronze of type No. 62 β referred to above. It seems worth while, therefore, to draw attention to the various objects as they appear, in addition to the other distinguishing features that occasionally call for comment.

Considering the amount of material at our disposal that is provided by these bronze coins, we ought to be able to form some opinion as to the order in which the magistrates followed one another. The heavy wear to which most of the specimens have been exposed, however, and the frequent application to them of the tripod countermark [Pl. VI. 5 and 9], make any profitable comparison of obverse dies a practical impossibility. It will be necessary to say a little more about this countermark directly, but for the moment I should like to point out that a study of its incidence seems capable of affording a rough

indication of the sequence in which the issues bearing it appeared.

The countermark seems to occur on what, from considerations of style, may be supposed to be the later issues more frequently than on the earlier ones, and it is for the purpose of applying this test that I am giving the actual numbers of the coins examined together with those of the countermarked specimens. From these figures it will be seen that the coins with the name *Λεωμέδων*, for instance, which may be considered to have been some of the first issues of the series, show only one countermark out of twenty specimens examined, while the eighteen specimens with *Λάμπρος* include five bearing the countermark. The issues of *Στάφυλος*, *Τηλέμαχος*, *Τίμανδρος*, *Τιμοκλῆς*, and *Φοῖνιξ* are all noticeable for their good style as well, and the proportion of countermarked specimens among them is much lower on the whole than among any of the middle-period issues mentioned above, or of sub-type No. 62 *β*. My theory is that a supplementary or emergency issue was made of these coins at some period subsequent to the circulation of sub-type No. 62 *β*, and that it was countermarked with a tripod. As the latest coins struck would be the most readily available they would be more largely used in the new issue than those of earlier date, and it is interesting to find that the coins of best style show the smallest proportion of countermarks.

As for the countermark itself, I think that there can be no doubt that it is not a foreign one. Its distribution is too general for that, for it will have been observed that there is not a single issue in the series that cannot provide at least one countermarked

specimen. On the other hand the tripod is not one of the Chian symbols. Still, it may refer to the temple of Apollo at Phanae, the principal shrine in the island, or even to Atarneus, where Apollo was also worshipped, and where the Chians were accustomed to look for help.[86]

It is even more difficult to suggest a date for the supposed emergency issue. I can only surmise that it appeared shortly after the original issue, thus precluding the probability of its having been made on the return of the islanders from their exile in Pontus in 84 B.C.—a theory that attracted me at one time.

The weights of these coins are not by any means so regular as those of the previous bronze issues of the same size, type No. 56, though they apparently aim at the same standard.

As will be seen from the foregoing list, the die-positions are almost invariably ↑↑, while in the case of type No. 56 they were very varied.

No. 62 *β*. The coins constituting this sub-type can easily be picked out from the remainder of the series, the change in style having by this time become fairly marked. There is no difference in fabric, the concave

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[86] In *Num. Chron.*, 1913, pp. 389-98, Mr. J. G. Milne published a very interesting paper on a similar phenomenon at Cyme. There also one particular bronze issue, and one only, as in this case at Chios, seems to have been countermarked by the issuing city. Mr. Milne also points out that the same thing was done as well at Erythrae and Clazomenae, and more rarely at Cnidus.

What is more to the point still is that the issues so treated of Cyme, Erythrae, and Clazomenae all belong to the period about 190 B.C.—that of Cnidus is apparently a century later—like this issue of Chios. It really looks as if there may have been some common cause for all these countermarks.

field being just as frequently met with as in the other sub-type, and the weights are neither more nor less regular. The die-positions are also the same as in the coins just described.

Of the three magistrates' names concerned, ΚΑΥΚΑΣΙΩΝ and ΜΕΝΕΣΘΕΥΣ[87] are generally encountered in much abbreviated forms, but they appear practically complete, the former on a piece in the public library at Chios, and the latter on No. 44 of the Hunterian Cabinet [Pl. VI. 10]; ΚΑΥΚΑΣΙΩΝ is interesting as affording an instance of a purely local name. There was a harbour in Chios called *Τὰ Καύκασα*[88] (on the south coast of the island according to Pape, or the north-east according to others), from which was named the Apollo Kaukaseus worshipped at Erythrae. On this god-name *Καυκασεύς* must have been formed the personal name *Καυκασίων*,[89] which is found nowhere else in the Greek world. ΣΩΣΤΡΑΤΟΣ is a name that we have already met with among the Chian magistrates.

The only point to note about the lettering of this group, which is identical in other respects with that of sub-type No. 62 *a*—even the Θ being always dotted—is the form of Ω on the only specimen on which it appears with the name *Καυκασίων*. This is ∩, a form that is found in imperial times, though not on intermediate issues.

It seems possible that *Σώστρατος* may have been the first of these three magistrates, since his issues are

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[87] Mionnet's doubtful reading ΜΕΛΧΙ (*Suppl.*, vi, p. 395, No. 62) may have arisen from a misreading of this name.

[88] See above, p. 9, *Num. Chron.*, 1915 (Part I), and Herodotus v. 33.

[89] See Fick and Bechtel, *loc. cit.*, p. 355.

linked to those of the previous groups by the specimen at Athens bearing his name in combination with the bunch of grapes and the race-torch symbol, in place of the later club and rudder. This may be further supported by the fact that the older form of **Ω** is invariably found on coins with *Σώστρατος*.

No. 63 *α*. The issues composing this group of drachms are very rare, each variety being represented by a single specimen only. They are to be distinguished from the later issues with reverse in a wreath by the dotted circle on the obverse, and by the formal type of the vine-wreath [**Pl. VI. 7–8**], less naturalistic than in type No. 61, but less florid than in No. 66 *β*, &c.

The style both of obverse and reverse shows a distinct falling off from that of the type No. 61 coins, and there was evidently a certain interval between them.

As already observed, too, it looks as if these drachms had not been struck in any considerable quantity.

The names do not call for any particular remark except that the *Δωρόθεος* of this period may, if correctly dated, be the great-grandfather of the *Τι. Κλαυ. Γοργίας Δωροθέου* who struck bronze in early imperial times. There is a *Γοργίας* at the end of this period who may well have been the son of the present magistrate.

The *Ἀλκίμαχος* is of course the name already mentioned as providing a link between these drachms and the late tetradrachms.

The lettering is chiefly remarkable for yielding the earliest instances of "apices" in the Chian series. Otherwise the forms of the letters are indistinguishable, as would have been expected, from those described under the last two bronze sub-types, the earlier drachms

and the tetradrachms. The Ξ in ΞHNΩN seems to be the latest instance that we have of a *zeta* with the perpendicular bar, though, as already observed, the letter in question is unfortunately only rarely met with at this period.

The weights, as pointed out under type No. 57, are distinctly lower than in the previous type, No. 61, though not at variance with those of the tetradrachms. The die-positions are always ↑↑.

The trident symbol makes its only appearance here in spite of the predilection now beginning to make itself felt for objects connected with ships and seafaring. The club on the coin with ΞHNΩN, if correctly described, seems to connect this group with the subtype No. 62 *β*, and to provide an extra link between them both and the tetradrachms of types Nos. 59 *β* and 60.

No. 63 *β* is the earliest and one of the very few instances extant of a drachm with Sphinx to right. Unfortunately the magistrate's name is illegible, and it almost looks as if the die had been purposely defaced. I only know of two specimens of the coin, one in Paris and the other in London. They are both from the same dies, the former being in rather better state than the latter. The magistrate's name has been read, in the one case as ΔHMHTPIOΣ,[90] and in the other as - - ΦIΛOΣ, and though the former is the more plausible reading of the two, it cannot, I think, be accepted as correct.

[90] Mionnet, *Méd. Gr.*, vi, p. 389, No. 9; Kofod Whitte, No. 91; and Dr. Imhoof-Blumer, in *Gr. Münz.*, all agree that it can only be described as the most probable reading.

The concave field, which is well marked on the reverses of these two coins, is not seen again till the very last of the autonomous silver drachm issues. The cantharus, here used as a symbol, but later on to become prominent among the new bronze types, is worth noting. The lettering is careless, like the whole workmanship of the coin, but "apices" were apparently not used by the engraver.

No. 64. These small bronze coins are very rare. They seem to belong to quite distinct issues, and are remarkable in showing a Sphinx turned to left. On that account, and from the occurrence on one of them of the name *Ἑρμώναξ*, it might be supposed that they belong to the same period as type No. 56. These resemblances, however, are quite outweighed by the style of the coins, and by the name *Λεωμέδων* in combination with the wheat-ear symbol. The lettering is good, and in agreement with that of the coins belonging to type No. 62. The concave reverse field, especially marked in the specimen with *Λεωμέδων*, is also characteristic of that series.

No. 65. These coins, of still smaller module than the last, and with the Sphinx to right, are also the undoubted contemporaries of type No. 62, as may be seen from their style and lettering, the occasional appearance of a bunch of grapes on the reverse, and the frequency with which names occur common to both series. They are probably a little later than type No. 64, but the *Ἑρμώναξ* recorded among them may quite well be the same magistrate to whom reference has just been made. In fact the recurrence of the

name strengthens the supposition that these two types must be closely connected.

On the coin from Paris, placed last in this list, there are traces of a letter before . *αινο* - - which is most probably *Φ*. If we could be sure of this the name might then be restored to *Φαινομενός* (accent according to Boeckh), which occurs in the Chian inscription, *C. I. G.*, No. 2227, and Collitz and Bechtel, *loc. cit.*, No. 5668, and most probably on one of the late bronze issues (type No. 83).

The weights are very irregular, though none surpasses 17·4 grains (1·13 grammes), which was also practically the upper limit of type No. 58.

The die-positions are almost, but not quite, as constantly ↑↑ as in type No. 62.

No. 66 *a*. Attention has already been drawn to this unique coin, and to its importance in furnishing a link between the two halves into which the present period may roughly be divided. The wreath on the reverse is the wreath of type No. 63, though the amphora is a trifle later [Pl. VI. 7, 8, and 13], but the Sphinx's attitude is precisely that of the small bronze coins described under type No. 67 [Pl. VI. 17–19], or of the symbol on some of the late tetradrachms. It occurs again on a few of the silver issues attributed to the first century, but not on any intermediate one.

The name ΑΝΔΡΩΝΑΞ is not recorded either by Pape, or by Fick and Bechtel, but it seems clear, and ΜΗΤΡΩΝΑΞ was known at Erythrae (*B. M. Cat.*, 160 and 245). ΜΑΝΔΡΩΝΑΞ would be a plausible restoration, as it is a common Ionian name, but there is no room for the initial Μ on the coin.

No. 66 β–δ comprises the drachms of varying designs that seem to follow the preceding, and probably represent the issues made between 133 and 88 B.C. It will be noted from the coins illustrated on **Pl. VI. 14–16** that the Sphinx—always represented to left—is of later style than anything we have yet seen, that the dotted circle, when it appears, is coarser than before, and that the amphora gradually develops the lip that is almost a constant feature of the first-century coins.

It is practically impossible to arrive at any real order of sequence for these drachms, though the one I am suggesting satisfies most of the points connected with style. It must be understood, however, to be purely conjectural, as the evidence from community of dies, which alone can be taken as conclusive in such a case, is very scarce. The coins of the γ and δ sub-types [**Pl. VI. 15**] are quite distinct in appearance from any of the other groups composing this type or from anything that precedes or follows them. They probably succeeded the issue with **ΖΗΝΙΣ** [**Pl. VI. 16**] and its companions, though I am placing that last on the plate because the type of amphora it bears is practically identical with the one that chiefly characterizes the next period.

On Dr. Imhoof-Blumer's coin with **ΚΟΡΩΝΟΣ** the Sphinx wears a *modius*. This object is seen fairly frequently on bronze of the first century B.C., but this is its first appearance in the series, and its only one, so far as I know, on a silver piece.

The issues now appear to have become much more plentiful than when tetradrachms were still being struck, especially towards the latter end of the period, for coins bearing the name **ΔΕΡΚΥΛΟΣ** are among

the commonest of Chian silver pieces. As so many of these are in mint state, it seems just possible that they may have been buried when Zenobius was collecting his fine.

An Ἀπελλῆς of Chios is mentioned in one of his letters by Cicero,[91] who is known to have visited the island in about 78–76 B.C. It is consequently tempting to connect this reference with the magistrate now suggested as having held office some ten years prior to that date. But the letter in question was not written till 45 B.C., and treats, moreover, of a mere commercial transaction. It is, therefore, unnecessary to suppose either that Cicero was alluding to a magistrate at all, or that the Ἀπελλῆς of the coins should be brought down in date to the second half of the first century. Ἀπελλᾶς, whose name occurs here also, was doubtless a different person from the preceding, and probably of earlier date.[92] The specimen with this name in Berlin has an additional interest in being the only Chian coin known to me with an undoubtedly foreign countermark upon it. The bust of Athena is quite distinct, and might be derived from one of several towns on the mainland of Asia Minor, Clazomenae, Heracleia ad Latmum, Lebedus, or Priene. Μητᾶς is quite a different order of name in -ᾶς from Ἀπελλᾶς, and is characteristic of the late period in which we now find ourselves. The name is unknown from any other source except these coins (see Collitz and Bechtel, *Griechische Dialekt-Inschriften*, vol. iii, part 2, No. 5683). Ἀργεῖος and Στάφυλος are names that appeared on

[91] *Letters to Atticus*, xii. 19.

[92] Compare the similar case of Ἱππίας and Ἱππίης in Period VII.

coins of type No. 62 *α*, but if they represent the same magistrates, which is hardly likely, it must have been at very much later periods of office.

The lettering of these five sub-types (including No. 66 *α*), though varied, has now become frankly late in character, and need not be minutely described. "Apices," or the wedge-shaped terminals already mentioned—the latter to be noted principally on the coins of sub-types No. 66 *γ* and *δ*—are in almost general use, and the old forms of Ξ, Γ, and Ω have entirely disappeared. The chevroned form of Λ may be noted, as it has never appeared before, but is of fairly frequent occurrence here. Also two interesting and uncommon transitional forms of Ξ and Ω are to be found on the coin with the name ΖΗΝΟΔΩΡΟΣ in the British Museum (*Cat. Ionia*, Pl. xxxiii. 11). If carefully examined they will be seen to be intermediate between Ξ–Ζ and Ω–Ω. The peculiar lettering noted in the name ΑΡΤΕΜΙΔΩΡΟΣ, especially the *omicron*, is taken from the coin in my collection, and will be referred to more fully under the next period.

The fashion of writing the magistrate's name in two lines, as in $\text{ΑΡΤΕΜΙΔΩΡ}\frac{\text{Ο}}{\text{Σ}}$ and $\text{ΜΗΤΡΟ}\frac{\text{ΔΩ}}{\text{ΡΟΣ}}$, as if to avoid abbreviation and yet conform to the limited space, is a sign of lateness, and will be found to occur frequently in the next period, especially on the bronze. The issues of the latter magistrate are also remarkable as affording the earliest appearance known of the prow on the obverse of a drachm (see below for further remarks on this head under type No. 67). The fresh symbols worthy of notice are the aplustre on coins with ΜΗΤΡΟΔΩΡΟΣ, the caps of the

Dioscuri on one of the issues with ΖΗΝΙΣ, the figure of Dionysus (?) on the unique coin with the otherwise unpublished name ΘΕΥΜΝΙΣ, and the twin stars on coins with ΜΕΝΕΚΛΗΣ.[93] The aplustre is, of course, to be expected now that references to ships and sea-borne commerce are becoming so frequent; numerous allusions to the Dioscuri, the protectors of sailors, will be found among the small bronze coins ascribed to the next period, and the statue of Dionysus, if correctly described, is the forerunner of the popular type on the large bronze coins of the imperial period. The repetition of the other symbols, such as the eagle, winged caduceus, &c., helps to confirm the attribution of those different groups to the same period.

The die-positions are invariably ↑↑ among the specimens that I have been able to handle, with the exception of three pieces bearing the name ΔΕΡΚΥΛΟΣ, where they are ↑←. This latter position is seen more frequently among what I take to be subsequent issues, particularly in the case of bronze coins, so that, if any lesson is to be derived from the arrangement of dies, we are thereby provided with an additional reason for placing the coins of sub-types No. 66 γ and δ at the end of their class.

The question of weights was fully gone into under type No. 57 of the last period, but it is worth while pointing out afresh, in order to show the lower level now reached, that only two specimens out of the fifty-eight represented by this type from first to last are heavier than 61·7 grains (4·00 grammes).

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[93] A second specimen of this coin, and the only other one known to me, is in the cabinet of Prof. Pozzi of Paris.

No. 67. These coins are fairly common on the whole, though perhaps not so well known as those of type No. 62.

The style of the Sphinx, apart from its raised fore-paw, comes sometimes very near to that seen in sub-type No. 62 β, as a comparison of Pl. VI. 9–10 with 18 will show. The amphora belongs to the type to which attention has already been drawn in the case of the drachms with ZHNIΣ, &c., as one only met with on late coins. From this stage onwards, too, the amphora always has a pointed tip, so that it will no longer be necessary to refer to that detail in describing it. On the other hand, the frequent occurrence of a concave field on the reverse gives these bronze coins an earlier look, from the point of view of fabric, than the drachms of type No. 66, their undoubted contemporaries. The scheme of representing the Sphinx seated upon various objects in place of the usual exergual line is new, though it will be found again on certain of the succeeding issues. The Sphinx is always shown seated to right except in two issues.

As already suggested this elaborated exergual line seems to have been devised in order to represent some of the symbols, now in general use, on a flan that affords only a limited amount of space. The coins of Ἀπελλῆς, for instance, show a Sphinx seated on a winged caduceus and club combined, which may be compared with the winged caduceus on the reverse of his drachms (type No. 66 γ). Among the other objects employed in this way the serpent staff does not appear elsewhere, but the club is familiar, and the palm-leaf is to be seen on the drachm of Ζηνόδωρος (type No. 66 δ).

Later on, when the wreath of the reverse type was suppressed, the symbol was placed between the letters XI OΣ, as in the case of the drachm in this period with MHTAΣ [Pl. VI. 14], but as long as the wreath was retained there was hardly room for anything else in the field of the coins. A solitary exception to this is provided by the issue of *Ξάνθιππος* which bears a head-dress of Isis on the reverse within the usual wreath. This method of placing symbols on the obverse other than the bunch of grapes or the prow follows the precedent set by type No. 62, but is not seen elsewhere. There are a few instances of the usual form of symbol on the obverse, accompanied then, as a rule, by a plain exergual line. These seem to occur among the latest issues of the type, for the most part, like the aplustre on coins of *Στρατόνικος*, and the head-dress of Isis on those of *Μηνόφιλος*. The aplustre has appeared already in this period on the drachms of *Ἑρμόφαντος* and of *Μητρόδωρος*, but the head-dress of Isis is new, though it is to be seen on one other issue of this series, that of *Ξάνθιππος* mentioned above, and on a much later type attributed to the next period. The symbol is of interest as bearing witness to the introduction of a foreign cult.[94] The issue of *Τρύφων* with a cantharus before the Sphinx is of a different order from the preceding. In this case, and in the one mentioned above with *Ξάνθιππος*, it is difficult to say which symbol refers to the second magistrate, or whether a third may not be thus recorded as in one or two issues of type No. 62 where two symbols occur.

[94] Vitruvius relates (i. 7. 1) that there were temples to Isis and Serapis in the *emporium* at Chios.

The Sphinx is seated on a club on the coins of this magistrate, and they seem from their style to be among the earliest of this group. A cantharus is the symbol on the drachm of type No. 63 *β*, with the illegible name, ascribed to the end of the previous sub-period, and the two issues may well have followed closely after one another. Finally come the issues of *Γοργίας*, *Μητρόδωρος*, and possibly *Δημοκλῆς*, with a prow on the obverse. These all look as if they should be placed at the end of the series both on account of their own style and of that of the drachms corresponding to the first two.

From the evidence of the drachms with *Μητρόδωρος*, referred to with regard to this point under type No. 66, and that of the later drachms, attributed to the next period, some of which bear symbols on the reverse as well as a prow on the obverse, it would appear that the latter, like the bunch of grapes, is now to be regarded as part of the type. This would mean, of course, that these particular bronze issues have no second magistrate's symbol, but, as has been pointed out more than once, there is nothing unusual in that.

The late appearance of the coins of *Γοργίας* favours the suggestion made above that he may have been the son of the *Δωρόθεος* of type No. 63 *α*. Though the coins of *Ἀπολλων[ίδης]*, like all those showing the Sphinx seated on a club or other object, must be numbered among the early issues of the group, this magistrate presumably officiated sufficiently late to allow of his holding another term after the interval in exile. Further reference to this will be found below. In any case he must be distinguished from the *Ἀπολλ[ωνίδης]* who figures under type No. 65. The name

ΚΛΕΙΔΗΣ on one of the two issues with Sphinx to left [Pl. VI. 19] has been considered to be of doubtful authenticity. It is certainly unrecorded elsewhere, but is clearly legible on one of the coins bearing it, now at Athens. There is no room on any of the specimens that I have seen for the letters ΕΥ before the Κ, the addition of which would make a plausible restoration, and the final Σ being in many cases quite distinct eliminates the possibility that the name might be an abbreviation for ΚΛΕΙΔΗΜΟΣ.[95]

The only evidence for the unique coin with ΔΙΟΜΗΔΗΣ, also with a Sphinx to left, is the work of Kofod Whitte, but I have always found his descriptions quite accurate in their main features.

It is probable that the last purely Ionic forms of names to be found among the Chian magistrates occur in the present group;[96] and the prevalence of the termination *-δωρος* both here and in part of the next period is also worth noting.

One or two late forms of letters may be noted. A barred Θ occurs on the coins of *Ξάνθιππος*, though

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[95] See Münsterberg, *op. cit.*, p. 109. Several of Mionnet's doubtful names are to be explained as misreadings of coins included in this type: ΑΗΝΙΚΟΣ probably represents *Κλείδης* (see K. Whitte's description, *op. cit.*, No. 68, and Mionnet's *Méd. Ant.*, iii, p. 269, No. 42, both evidently referring to the same coin at Munich with Sphinx to left), ΛΕΤΕΜΗΣ—*Ἀρτεμῆς*, ΟΛΛΑΝ - - —*Ἀπολλων[ίδης]*, and ΞΕΝΟ - - —*Εὔξενος*.

[96] Collitz and Bechtel, *op. cit.*, No. 5683, give the following as the Ionic forms to be noted on Chian coins: ΗΡΑΓΟΡΗΣ, ΘΕΥΤΤΙΣ, and ΙΠΠΙΗΣ, described here under Period VII; ΘΕΥΠΟΡΠΟΣ for ΘΕΥΠΟΜΠΟΣ, Period VIII; and ΘΕΡΣΗΣ, ΑΠΕΛΛΗΣ, ΑΡΤΕΜΗΣ, and ΜΗΤΑΣ, Period IX. To these must be added ΕΟΡΥΝΟΜΟΣ from Period VII, ΕΟΝΟΜΟΣ from Period VIII, and ΘΕΥΜΝΙΣ from Period IX.

in those of *Ἀθηνικῶν* (accent according to Boeckh, *C.I.G.*, 2214) it is dotted, and Φ is everywhere rendered •|•.

The general style of the lettering varies between the forms with "apices" and what I am calling wedge-shaped terminals, the latter predominating largely. This peculiar style of lettering is not met with elsewhere in the Chian series than in these two types Nos. 66–7.[97]

The die-positions show more variety than in any of the groups described since type No. 56 of Period VIII, though the majority are still ↑↑. The late position ↑← will be seen to occur here and there throughout the series.

The weights are most irregular, the heaviest specimen that I have recorded being one with the name *Μητρόδωρος*, in Mr. E. T. Newell's collection, which weighs 57·2 grains (3·77 grammes), and the lightest one with *Εὔξενος*, from Messrs. Rollin and Feuardent's stock, which is less than half that weight, or 27·8 grains (1·80 grammes). The irregularity is so great that we may fairly conclude that, unlike type No. 56, and to a certain extent No. 62 as well, no particular weight standard was aimed at in this series.

No. 68. These small coins, as may be seen from the specimen illustrated [Pl. VI. 20], are of similar style and fabric to the preceding, the flans being thick

[97] The four-sided grave-stele from Chios in the Altes Museum at Berlin, Nordsaal (V), No. 766 A, bears the name ΜΗΤΡΟΔΩΡΟΣ ΘΕΟΓΕΙΤΟΝΟΣ in these identical letters. The monument is of good Hellenistic work, but beyond that affords no criterion of date.

and the die-position varied, though none of the names corresponds and the design is different. It will be noted, too, that there is a great similarity between the poise of the Sphinx's head on the coin just alluded to and on the drachm with ΖΗΝΙΣ [Pl. VI. 16], while its wing is of the type peculiar to the drachms described under No. 66 *γ* and *δ*. On the whole the attribution seems justifiable, and the coins certainly form a class by themselves. They are decidedly uncommon.

Ἀντικλῆς being a Chian name[98] has encouraged me to prefer it as a restoration for ΑΝΤΙΚΛ - to Ἀντικλείδης or Ἄντικλος. The Ἀργεῖος now met with cannot be the same magistrate as the one recorded under type No. 62 *α*, but the drachms of type No. 66 *β*, upon which the name also occurs, might very well be the contemporaries of this bronze issue. Though the name on the little coin in Mr. E. T. Newell's Collection is illegible, enough remains of the letters to show that it is a different name from any of the others recorded under this type, and it is tempting to read into it some derivative of Hector, the name of one of the ancient kings of Chios.

The lettering is difficult to describe in its general characteristics, but there are no unusual forms to be noted.

The weights are, if anything, higher than in type No. 65.

J. Mavrogordato.

[98] A son of Theocritus the Chian sophist was so named (Arrian, *An.* iv. 13. 4).

APPENDIX

List of magistrates' names belonging to coins of Period IX, divided into their two main groups, and showing the denominations on which they occur.

190–133 (?) B.C.

	tetradrachm.	*drachm.*	*large bronze.*	*small bronze.*
Ἀγγελίσκος . . .	—	61	—	—
Ἀλκίμαχος . . .	60	63 *a*	—	—
Ἀντιφῶν	60	—	—	—
Ἀπολλ[ωνίδης] . .	—	—	—	65
Ἀργεῖος	—	—	62 *a*	—
Ἀριστόμ[αχος] . .	—	—	62 *a*	65
Ἀσπάσιος. . . .	—	—	62 *a*	—
Γνῶσις.	60	—	62 *a*	—
Δημήτριος . . .	—	—	62 *a*	—
Διόγνητος . . .	60	—	—	—
Δωρόθεος	—	63 *a*	—	—
Ἑρμώνα[ξ] . . .	—	—	—	64 & 65
Ἑστιαῖος	—	63 *a*	—	—
Εὐκλέων	60	—	—	—
Εὐκλῆς	60	—	—	—
Ζηνύδοτος . . .	60	—	—	—
Ζήνων	—	63 *a*	—	—
Ἡγέμων	—	—	62 *a*	—
Ἡράκλειτος . . .	60	—	—	—
Ἡρόστρα[τος] . .	—	—	62 *a*	—
Θεύδω[ρος] . . .	—	—	—	65
Θερσῆς	59*a* (?) & 59*β* (?)	—	62 *a*	—
Ἱκέσιος	—	—	62 *a*	—
Καυκασίων . . .	—	—	62 *β*	—
Κηφισίδη[ς] . . .	—	—	62 *a*	—
Κράτων	60	—	—	—
Κύλλανος. . . .	—	—	62 *a*	—
Λάμπρος	—	—	62 *a*	—
Λάσων.	60	—	—	—
Λεωμέδων . . .	—	61	62 *a*	64
Λυσικρ[άτης] . .	—	—	—	65
Μενεκράτης . . .	60	—	—	—
Μενεσθεύ[ς] . . .	59 *β* (?)	—	62 *β*	—
Ξένων	60	—	—	—
Ξοῦθος	60	—	—	—
Οἰνοπί[δ]ης . . .	60	—	—	—
Πολίανθος . . .	—	—	62 *a*	—
Σκύμ[νος] . . .	—	—	—	65
Στάφυλ[ος] . . .	—	—	62 *a*	65
Σώστρατ[ος] . . .	—	—	62 *β*	—
Τηλέμαχ[ος] . . .	—	—	62 *a*	—
Τίμανδρος. . . .	—	—	62 *a*	65
Τιμοδάμας . . .	60	—	—	—
Τιμοκλῆ[ς] . . .	—	—	62 *a*	—
Τίμων	60	—	—	—
[Φ]αινο - - . . .	—	—	—	65
Φίλιππος	60	—	—	—
Φοῖνιξ	—	—	62 *a*	—
Χόρης	60	—	—	—

133 (?)–84 B.C.

	tetradrachm.	*drachm.*	*large bronze.*	*small bronze.*
Ἀθηνικῶν . . .	—	—	67	—
Αἰσχίνης	—	—	67	—
Ἀνδράναξ . . .	—	66 *a*	—	—
Ἀντικλ[ῆς] . . .	—	—	—	68
Ἀπελλᾶς	—	66 *β*	—	—
Ἀπελλῆς	—	66 *γ*	67	—
Ἀπολλων[ίδης] . .	—	—	67	—
Ἀργεῖος	—	66 *β*	—	68
Ἀρτεμῆς	—	—	67	—
Ἀρτεμίδωρος . .	—	66 *β*	67	—
Γοργίας	—	66 *δ*	67	—
Δερκύλος	—	66 *γ*	—	—
Δημοκλῆς . . .	—	—	67	—
Δημοκρά[της] . .	—	—	67	—
Διομήδης	—	—	67	—
Ἑρμόφαντος . . .	—	66 *β*	—	—
Εὔξενος	—	—	67	—
Ζῆνις	—	66 *β*	—	—
Ζηνόδωρος . . .	—	66 *δ*	—	—
Ἡλιόδωρος . . .	—	66 *β*	—	—
Ἡραῖος	—	—	—	68
Ἡροκράτ[ης] . . .	—	—	—	68
Θεῦμνις	—	66 *ββ*	—	—
Κόρωνος	—	66 *γ*	—	—
Κλείδης	—	—	67	—
Μενεκλῆς	—	66 *γ*	—	—
Μηνογένη[ς] . . .	—	—	67	—
Μηνόφιλος . . .	—	—	67	—
Μητᾶς	—	66 *β*	—	—
Μητρόδωρος . . .	—	66 *γ*	67	—
Μίκκαλος	—	—	67	—
Μιλτιάδης . . .	—	—	67	—
Ξάνθιπ[πος] . . .	—	—	67	—
Στάφυλος	—	66 *γ*	—	—
Στρατόνι[κος] . .	—	—	67	—
Τρύφων	—	—	67	—
Φαναγό[ρης or -ρας]	—	—	—	68
[E]K . OΔ-- .	—	—	—	68

The figures, 59–68, indicate the types under which the coins are described above.

A CHRONOLOGICAL ARRANGEMENT OF THE COINS OF CHIOS; PART IV.

(See Plate VII.)

Period X. 84 B.C.—The Reign of Augustus.

In spite of her boasted autonomy Chios from now onwards was as much subject to Rome as any ordinary province of the Empire. Verres disregarded her peculiar rights and pillaged her statues as freely as in cities where no such privileges existed. The most that can be said of her position as independent ally of the Romans is that she preserved her magistracies and civic laws as well as the right to coin silver. In 28 B.C. Augustus confirmed the so-called liberty of the island and no doubt restricted it as well, and in 15 B.C. came his monetary reform when the right of coining gold and silver was definitely reserved to the reigning Emperor. Whatever may have happened in this respect in other parts of the Empire, we have no reason to suppose that at Chios any drachms were struck after the accession of Augustus with the exception of those bearing the inscription **ΒΑΣΙΛΕΩΣ ΑΝΤΙΟΧΟΥ ΔΩΡΟΝ** [Pl. VII. 12–13]. I am inclined to place these drachms rather later than the coins with the title **ΣΕΒΑΣΤΟΥ** [Pl. VII. 11], which may be dated *circa* 30 B.C., and to attribute them to the time of

Antiochus II of Commagene, who reigned from 38 to 20 B.C.

Two different suggestions with regard to the date of these drachms have already been made. M. Théodore Reinach thought that they were probably struck during the reigns of either Antiochus I or II of Commagene,[99] and Dr. Imhoof-Blumer that Antiochus IV, or the Great, of the same dynasty,[100] was the king whose generosity they commemorate. The former gives as his reason for preferring Antiochus I or II the fact that the close of the first century B.C. was remarkable at Chios for the acts of benevolence performed in the interest of the state by outsiders. The latter pronounced in favour of Antiochus IV simply on account of his wealth.

Now, of these three monarchs, Antiochus I reigned from 69 to 38 B.C., and this seems to me to be altogether too early a date for the style of the coins, though the period of the next reign, especially the last few years of it, would do very well. I am accordingly deciding, as I say above, for Antiochus II. Very little is known about him. But the friendly bearing of his father towards the Greeks is on record,[101] and we may assume, as Reinach apparently does, that the son pursued a similar policy. The period of Antiochus IV, on the other hand, A.D. 38–72, is as much too late, from the point of view of style, as that of Antiochus I is

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[99] "La Dynastie de Commagène", from *L'Histoire par les Monnaies*, p 247, note (1).

[100] *Griechische Münzen*, Nos. 398–9. Dr. Head took the same view, *Hist. Num.*[2], p. 601.

[101] He called himself on his inscriptions Φιλορώμαιος Φιλέλλην, among other titles.

too early, at any rate so far as regards the better known of the two types concerned [Pl. VII. 12]. The details of both Sphinx and amphora are much more in keeping with what may fairly be regarded as the coinage of the late first century B.C. than with the issues that I am attributing to the time of Nero. This will be readily grasped by comparing the coin illustrated, Pl. VII. 17, with any of the later types. The former represents a group of bronze coins practically identical in style with these drachms, and since the bronze coins in question cannot well be dated later than the reign of Augustus, then this issue of the drachms at any rate must be assigned, as I am assigning them, to his contemporary Antiochus II of Commagene.

It is true that there were two issues and that the second type [Pl. VII. 13], which is represented to-day by a single specimen only, does look to be of later date than its companion. It must at any rate have been struck in a different year judging by the change in the magistrate's name alone. But if the two types are not to be regarded as of approximately the same date the latter would have to be carried down to the reign of Antiochus IV—as suggested by Dr. Imhoof-Blumer for all these coins—since the period of the intervening reign or reigns in Commagene was practically one of anarchy. And though there is not so much in the workmanship or lettering of the second type that is inconsistent with this theory, as in the first one, the improbability that two such issues should have been made by two different monarchs so widely separated in time is very great. Moreover the apparent difficulties suggested by the difference in style are, I think, capable of being overcome, as I shall try to

show later on, and we may conclude that the two types were issued within a few years of one another at the most.

In any case it seems more likely that the gift under consideration should have been made at a time when there is reason to suppose that the Chian state was in want of money than that the coins recording the gift should be relegated to a later period of which we have no such knowledge. Whether the poverty that evidently existed during the Augustan age was directly due to the ravages of Mithradates may be doubted, though the seeds of it were probably sown by those disasters.

At the end of the introduction to the last period we left the islanders struggling to re-establish themselves on their return from exile with the apparently gratuitous help of the citizens of Heraclea Pontica. Pliny the Elder, who makes the most of the Chian autonomy, relates[102] that Cicero paid a visit to Chios—presumably in 78–76 B.C. (see above in reference to type No. 66 β–δ) —when the inhabitants were engaged in rebuilding their walls and repairing other damage recently done to the city. After that we hear nothing of an authentic nature relating to financial difficulties till the account we possess of Herod the Great's visit to the island in 12 B.C.[103] He then appears to have spent some little time there, to have paid the debts owed by the people to the imperial *procurator*, and to have assisted them in restoring some of their monuments.

This is the most circumstantial account we have of a monetary grant being made to Chios by a foreigner,

[102] *Hist. Nat.*, xxxvi. 6. 46.

[103] Josephus, *Jewish Antiquities*, xvi. 2. 2.

though it is not the only one. Julius Caesar is described in one of the local inscriptions[104] as a benefactor of the island, but in his case the term may only have been used in a general sense. Also, in addition to the drachms recording the gift of the Antiochus whose identity is in dispute, there is a unique variety [Pl. VII. 10], of about the same date apparently as the drachms with ΣΕΒΑΣΤΟΥ, which seems to refer to some act of generosity on the part of a Roman settler in the island.

All these records, it will be noted, point to events that occurred before the end of the first century B.C.

Why Herod should have behaved so bountifully towards an obscure Greek state is not clear, but it seems probable that the Chian population at this period included a Jewish colony of some importance. A similar reason very likely called forth the assistance of the king of Commagene, while the Roman benefactor no doubt held property in the state.

One of the features of the period now under review is the number of coins contained in it that are capable of being dated with some approach to accuracy. Besides the three issues of drachms just mentioned there is the bronze coin with a galloping horseman on the obverse [Pl. VII. 14] that was evidently modelled on the Republican issues of various members of the Calpurnia Gens, 88–50 B.C.[105] From the analogy of other local coins this Chian issue must have followed its Roman prototype at some considerable distance, though, as I shall try to show, it was probably struck several years before the accession

[104] Boeckh, *C. I. G.*, No. 2214 g.

[105] See Grueber, *Brit. Mus. Cat. of Roman Republic*, Pls. xxxiii, xlvi, and xlvii.

of Augustus. Then there is the other bronze coin bearing the name ΤΙ·ΚΛΑΥ·ΓΟΡΓΙΑΣ·ΔΩΡΟΘΕΟΥ· [Pl. VII. 17] to which attention has already been drawn, first with regard to the two last elements of the inscription, and secondly with regard to the strong resemblance that it bears to the greater part of the drachms of King Antiochus. The two first words, apparently Tiberius Claudius, cannot represent the Emperor, and one must suppose that some loyal citizen of Chios assumed the name of Augustus's successor after the latter's mission to Armenia and popular victory over the Parthians. As this took place in 20 B.C. the suggestion just made that both this issue and the disputed drachms should be ascribed to some such date is thereby strengthened.[106] The same remark as regards style applies equally to the bronze coins with the name ACMENOC.

These different landmarks have each in turn tempted me to fix a definite limit to the end of this period, but I have reluctantly felt obliged to reject them all as incapable of being applied sufficiently widely. The obvious line of division between this period and the next, and the one that I have decided to follow, is that separating the old style of coins, both silver and bronze, from the true imperial issues bearing marks of value. We do not know exactly when these issues began, though it is natural to connect them with the monetary reform of Augustus. Various points of style, however,

[106] Still further evidence in favour of this is furnished by an inscription found in the modern town of Chios (*C. I. G.*, No. 2242) consisting of the name ΚΛΑΥΔΙΟC ΦΗCΗΝΟC (*sic*). From type No. 88 below it will be seen that a magistrate with the latter name, there correctly spelt ΦΗΣΙ[ΝΟΣ], was in office when Antiochus made his gift to the island.

seem to show that they were introduced gradually, and did not replace the older issues once for all. I am therefore taking refuge in the vagueness of the phrase "reign of Augustus", which allows for the overlapping of the two styles, while not defining the limits of either too closely.

With regard to the coins belonging to the early part of the period it will be seen that the silver issues attributed to these years are less plentiful than those that I am supposing to have immediately preceded the exile in Pontus. This is what might have been expected, though it will be understood that the selection I have made is mainly arbitrary, helped out by the peculiarities of style that I am noting below. According to the arrangement I am suggesting there are only fourteen names extant on drachms to cover the fifty-four years between 84 and 30 B.C., and all these except three are represented by only one or two specimens each. A novelty in the silver coinage is the introduction of a divisional piece, probably a diobol [Pl. VII. 9]. From the style of the few specimens that we have these coins seem to have been struck to accompany some of the last autonomous drachms, though, in the absence of any magistrate's name, this cannot be stated with certainty. The issues are undoubtedly late, in any case, and no other similar ones appear to have been made.

The bronze belonging to this part of the period is more plentiful than the silver, both in the number of issues known and in the quantity of their individual specimens. There are a few pieces of large module—22 mm. average [Pl. VII. 3]—which may possibly have been struck before the coining of silver was resumed.

I base this suggestion chiefly on grounds of style, though it is possible that the coins in question ought to be placed nearer to the imperial issues bearing named denominations.

The chief characteristic in the style of this period, taken as a whole, is the much greater variety to be observed among the designs of the coins than at any previous period. Though the main elements of the types are still unchanged there is an absence of that conservatism which, from whatever cause it may arise, is a proof of local patriotism, and has been such a noticeable feature of the Chian series hitherto. The introduction of Alexandrine tetradrachms, though it was a step taken by most of the Greek states of the day, may be said to have been the first sign that this spirit was on the wane. All the same, the old types both for drachms and bronze coins were faithfully preserved, as we have seen, till at least half-way through the second century B.C. There was a little slackening then, exemplified by the way in which the design for drachms breaks up into the five separate groups of type No. 66, and by the new bronze type No. 67, but the coins now to be described show a different design for nearly every issue. There would no doubt have been a tendency to adhere to old traditions for a while when the Chians first returned from their exile, and this has encouraged me to begin this period with the small bronze coins of type No. 74 [Pl. VII. 4], and others of kindred style both silver and bronze [Pl. VII. 1 and 3], instead of including the first named at least among the somewhat similar issues attributed to the last period (type No. 67). After this last flicker of conservatism the individualistic types probably began

to appear, and the change was no doubt hastened by a greatly increased number of foreigners among the citizens. Apart from its inherent probability this supposition is confirmed by the names recorded on the coins. Among the later issues little groups can occasionally be picked out with a design common to all the coins composing them, like type No. 76 *a* in silver, and Nos. 78 and 83 in bronze, but they are quite rare exceptions.

Real innovations in type, which are most unusual and only to be found on bronze coins, appear when the Roman influence began to make itself strongly felt [Pl. VII. 14 and 19]. The former of these, to which attention has already been drawn, is clearly an agonistic type connected with the local games in honour of Dionysus.[107]

The accession of Augustus seems to have been marked by a momentary improvement in the style of the coins, and by a certain archaism in their lettering.

The pre-Augustan drachms still to be described may be divided into the three main types that follow.

69. *Obv.*—Sphinx with sketchy curled wing, and hair fastened in knot behind with a loose lock or two hanging on neck, seated l. on plain exergual line, sometimes lifting farther fore-paw. Human breast clearly defined. In front of it varying symbol, usually grapes and prow; and the whole, generally, in border of dots. Work in low relief.

Rev.—Tall thin amphora with lip between magistrate's name r. and ΧΙ ΟΣ l. In field l. varying symbol, as a rule, and the whole in wreath of varying design or border of dots.

[107] For references to games in inscriptions see Boeckh, *C. I. G.*, Nos. 2214 and 2221 b; also Fustel de Coulanges, *op. cit.*, p. 308.

Æ. ↑↑ 19·00 mm. 49·7 grains (3·22 grammes). Attic drachm. Paris Cabinet, Waddington, No. 2009. [Pl. VII. 1.] Also in Coll. at Public Library, Chios.

↑↓ 19·00 and 17·00 mm. 47·2 and 45·8 grains (3·06 and 2·97 grammes). Attic drachm. Brit. Mus. Cat. Ionia, Chios, No. 53, and Berlin Cabinet. Also in McClean Coll., Fitzwilliam Mus., Cambridge.

ΑΡΤΕΜΙΔΩ / ΡΟΣ *Obv.* has bunch of grapes over prow l. *Rev.* Aplustre to l. and vine-wreath tied below (1). Aplustre to l. and border of dots (2).

(probably) ↑? 19·00 mm. 59·0 grains (3·82 grammes). Attic drachm. Munich Cabinet, published by Imhoof-Blumer, *Griech. Münz.*, No. 387.

ΑΣΦΑΛΗΣ *Obv.* has bunch of grapes. *Rev.* Thyrsus *lemniscatus* to r. and vine-wreath.

↑↑ 19·00 mm. 51·1 grains (3·31 grammes). Attic drachm. Paris Cabinet, Waddington, No. 2010.

↑↑ 18·00 mm. 47·5 grains (3·08 grammes). Attic drachm. Berlin Cabinet.

ΔΕΚΜΟ[Σ] *Obv.* has no border (1), but aplustre over prow l. in both. *Rev.* has wreath to l. and olive-wreath border.

↑↑ 18·50 mm. 63·9 grains (4·14 grammes). Attic drachm. Paris Cabinet, Waddington, No. 2013. [Pl. VII. 2.]

ΛΕΩΝΙΔΗΣ *Obv.* has Sphinx holding thyrsus sloped over farther shoulder. *Rev.* has kithara l. and spear r., and ivy-wreath tied below.

↑↑ 17·50 mm. 45·5 grains (2·95 grammes). Attic drachm. My collection.

↑← 19·00 mm. 43·5 grains (2·82 grammes). Attic drachm. Vienna Cabinet.

ΜΕΝΕΚΡΑΤΗΣ *Obv.* has Sphinx raising farther forepaw over prow pointing upwards. *Rev.* has wreath to l. but no border.

↑↑ 19·00 mm. 51·7 grains (3·35 grammes). Attic drachm. Berlin Cabinet.

ΜΟΣΧΙΩΝ *Obv.* has bunch of grapes to l. *Rev.* Vine-wreath tied below and no symbol.

↑↑ 18·00 mm. 45·8 grains (2·97 grammes). Attic drachm. Paris Cabinet, No. 5003.

↑← 20·00 mm. 48·6 grains (3·15 grammes). Attic drachm. Vienna Cabinet.

ΣΚΥΜΝΟΣ *Obv.* has Sphinx raising farther forepaw over prow l. *Rev.* has cornucopiae to l. but no border.

The bronze coins that I would ascribe to the beginning of this period, some of them being possibly earlier than type No. 69, are the following:

70 *a*. *Obv.*—Sphinx as on most of the coins described under type No. 69 seated l. or r. on exergual line of varying design with bunch of grapes before it, sometimes held in its upraised forepaw. Border of dots. Low relief.

Rev.—Tall thin amphora with lip between magistrate's name r. and ΧΙΟΣ l. No symbol. The whole in vine-wreath tied below.

Æ. ↑↑ 24·00 mm. 127·6 grains (8·27 grammes). Berlin Cabinet.

ΑΓ[Γ]Ε - - *Obv.* has Sphinx l. on plain exergual line and no border.

ΔΙΟΝΥ - - Details lacking. Coll. of Prof. Pozzi, Paris.

↑↑ 22·00 mm. 107·3 grains (6·95 grammes). Paris Cabinet, No. 5095. [Pl. VII. 3.]

↑↑ 22·00 mm. 124·2 grains (8·05 grammes). Paris Cabinet, No. 5096.

↑↑ 20·50 mm. 123·4 grains (7·99 grammes). Leake Coll., Fitzwilliam Mus., Cambridge.

ΜΗΤΡΟΔΩΡ[ΟΣ] *Obv.* has Sphinx r. on winged caduceus holding grapes in farther forepaw.

70 β. Same as preceding, with ΜΗΤΡΟΔΩΡΟΣ, except that the amphora has no lip and there is no magistrate's name.

Æ. ↑↑ 22·00 mm. 125·0 grains (8·10 grammes). Vienna Cabinet.

71. *Obv.*—Sphinx of same style seated r. or l. generally on plain exergual line with bunch of grapes before it. Border of dots. Low relief.

Rev.—Amphora with or without lip between magistrate's name r. frequently written in two lines, and ΧΙ ΟΣ l. with symbol between the letters as a rule. No border.

Æ. ↑↑ 15·00 mm. Wt. ? Dealer's stock in Chios, 1913.

ΑΠΟΛΛΩΝ[ΙΔΗΣ] *Obv.* has Sphinx r. *Rev.* Cornucopiae (?) as symbol.

↑↑ 14·00–12·25 mm. 43·4–26·2 grains (2·81–1·70 grammes). Paris, Berlin, Vienna, and Brit. Mus. Cat. Ionia, Chios, No. 89.

ΑΣΠΑΣΙ / ΟΣ *Obv.* has Sphinx r. *Rev.* Caps of Dioscuri and stars as symbol.

↑↑ 14·50–14·00 mm. 37·0–23·6 grains (2·40–1·53 grammes). Berlin Cabinet, Coll. E. T. Newell, and my collection.

ΓΟΡΓΙΑΣ *Obv.* has Sphinx r. raising farther forepaw over grapes. *Rev.* Cornucopiae as symbol.

↑↑ 13·50 mm. 41·7 grains (2·70 grammes). Athens Cabinet.

ΓΥΘ[Ι]ΩΝ *Obv.* has Sphinx l. raising farther forepaw over grapes. *Rev.* has indistinguishable symbol.

↑↑ 12·50 mm. Wt. ? Athens Cabinet.

ΘΕΟΔΩΡΟΣ *Obv.* has Sphinx l. on winged caduceus. *Rev.* has caps of Dioscuri and stars as symbol.

↑↑ 14·50–12·50 mm. 30·1–28·6 grains (1·95–1·85 grammes). Berlin, Munich, and Athens Cabinets. One specimen out of two at Athens found in Delos, and published

J. Int. d'Arch. Num., 1911, p. 85. Also my collection, illustrated. [Pl. VII. 4.]

MHNoΔΩ / PoΣ *Obv.* has Sphinx l. wearing *modius* on winged caduceus. (One of the Athens specimens has Sphinx r.) *Rev.* Caps of Dioscuri and stars as symbol.

↑↑ 15·00 mm. Wt. ? Sir H. Weber's Collection.

ΠYΘIoΣ *Obv.* has Sphinx l. *Rev.* Caps of Dioscuri and stars as symbol.

↑← 14·00 mm. 35·8 grains (2·32 grammes). Athens Cabinet.

ΣΩΣIBIo[Σ] *Obv.* has Sphinx l. *Rev.* Owl (?) as symbol.

72. *Obv.*—Similar to preceding, but of more varied design and in rather higher relief.

Rev.—Similar to preceding, but type generally enclosed in a border.

Æ. ↑← 13·00 mm. Wt. ? Coll. in Public Library, Chios.

↑↑ 12·50 mm. 30·7 grains (1·99 grammes). Berlin Cabinet.

ΑΡΓΗΟΣ *Obv.* has Sphinx l. No grapes. *Rev.* Eagle as symbol. Border of dots.

↑↑ 14·75 and 13·50 mm. Wt. ? Paris Cabinet, illustrated [Pl. VII. 5], and Munich Cabinet.

↑↑ 13·50 mm. Wt. ? Berlin Cabinet.

ΔIoΔΩ / PoΣ *Obv.* has Sphinx holding up bunch of grapes in farther forepaw on serpent staff. No border. (1) has type to l.; (2) to r. *Rev.* has type in ivy (?)-wreath with head-dress of Isis as symbol (1); no symbol (2).

↑↓ 15·50 mm. 29·5 grains (1·91 grammes). Coll. E. T. Newell; also in Copenhagen Cabinet (K. Whitte's No. 126), but weight not known.

MENIΠ / ΠoΣ *Obv.* has Sphinx r. on club. No grapes. *Rev.* has type in wreath like foregoing with caps of Dioscuri and stars as symbol.

↑↑ 15·25–11·75 mm. 27·6–24·4 grains (1·79–1·58 grammes). Hunterian Coll., No. 48. Paris, Berlin, and Vienna Cabinets.

ΠΤΟΛΕΜ / ΑΙΟΣ *Obv.* has Sphinx l. with ear of corn in front. *Rev.* Star as symbol. Border of dots.

↑↑ 13·50 mm. Wt. ? Athens Cabinet, found in Delos, and published *J. Int. d'Arch. Num.*, 1911, p. 59.

[Σ]ΩΣΤΡΑ / ΤΟΣ *Obv.* has Sphinx l. holding up bunch of grapes in farther forepaw. No border. *Rev.* Cornucopiae (?) as symbol. No border.

73. Similar to No. 71, but of rather later style and with border of dots on reverse.

Æ. ↑← 13·50 mm. Wt. ? Paris Cabinet.

↑← 16·50 and 15·00 mm. Wt. ? Dealer's stock in Chios, 1913, and Berlin Cabinet.

ΔΕΚΜΟΣ *Obv.* (1) has Sphinx l. holding aplustre in r. forepaw and placing l. on prow. (2) has Sphinx r. raising farther forepaw over prow. No grapes. *Rev.* has wreath as symbol in both.

Drachms with the two following names seem to be later than any of those described under No. 69.

74. *Obv.*—Sphinx seated l. on plain exergual line similar to No. 69, but of rougher style and in higher relief. Before it bunch of grapes.

Rev. Amphora with lip between magistrate's name r. and ΧΙΟΣ l. No symbol.

Æ. ↑↑ and ↑↓ 20·00–18·75 mm. 55·6–52·3 grains (3·60–3·39 grammes). Attic drachms. Berlin Cabinet, published by Imhoof-Blumer, *Gr. Münz.*, No. 384; Paris Cabinet, Waddington, No. 2015; and two specimens in Coll. F. Pozzi, weights unknown.

↑↑ 19·50 mm. 50·1 grains (3·25 grammes). Attic drachm. Berlin Cabinet.

ΠΑVΣΑΝΙΑΣ *Obv.* has border of dots in both, but (2) has type to r. *Rev.* has vine-wreath tied below.

↑↑ 18·50 mm. 55·1 grains (3·57 grammes). Attic drachm. Paris Cabinet, Waddington, No. 2017. [Pl. VII. 6.]

ΣΙΛΛΙΣ *Obv.* has no border. *Rev.* has border of dots.

The following bronze coins may be contemporaries of the foregoing:

75. *Obv.*—Sphinx, similar to type No. 72, seated r. or l. on plain exergual line without border.

Rev.—Amphora between magistrate's name r. and ΧΙΟΣ l., usually without either symbol or dotted border.

Æ. ↑↑, ↑↓, and ↑← 14·50–13·25 mm. 37·5–24·6 grains (2·43–1·59 grammes). Berlin Cabinet, B. Yakountchikoff's, Chios Library, and the writer's collections.

ΑΡΙΣΤΟ
ΚΛΗΣ *Obv.* has Sphinx to r. wearing *modius*, and raising farther forepaw over prow, sometimes pointing upwards. No grapes. *Rev.* sometimes in border of dots.

↑← 13·00 mm. 26·9 grains (1·74 grammes). My collection.

ΗΓΗΜ[ΩΝ] *Obv.* has Sphinx to l.

↑↑ 14·00–12·75 mm. 42·1 grains (2·73 grammes). My collection; also in Paris and Berlin Cabinets, but weights not noted.

ΣΩΣΙΝΙκο[Σ] *Obv.* has Sphinx to l. *Rev.* has wreath as symbol, and ΧΙ ΟΣ.

↑↑ 13·00 mm. 37·8 grains (2·45 grammes). Coll. E. T. Newell; also private coll. at Chios, weight not noted.

ΣΩΣΤΡΑΤΟΣ *Obv.* has Sphinx r. wearing *modius*. No grapes, but latter specimen has dotted border.

To one of the four preceding bronze types must probably also be added the following, further particulars of which I have been unable to obtain:

Æ. ↑? 15·00 mm. Wt. ? Cat. of Léopold Welzl de Wellenheim's Coll., vol. i, No. 5792.

ΑΙΔΗΜΟ - - *Obv.* has Sphinx l. raising farther forepaw over prow.

A still later group of drachms than type No. 74 is the following, with which must be associated the new divisional piece:

76 *α*. *Obv.*—Squat-shaped Sphinx seated l. on plain exergual line, wing curled more like the late coins of Period IX, but style much inferior, head-dress resembling turban, and both forelegs on ground. In front bunch of grapes. The whole in border of dots. Comparatively high relief.

Rev.—Amphora without lip between magistrate's name r. and ΧΙ•Σ l. No symbol. The whole in vine-wreath tied below.

Æ. ↑↑ 19·00 mm. 59·4 grains (3·85 grammes). Attic drachm. Berlin Cabinet, Imhoof-Blumer's *Griech. Münz.*, No. 375.

ΑοΗΝΑΙ•Σ

↑? 20·75 mm. 56·8 grains (3·68 grammes). Attic drachm. Dr. Imhoof-Blumer's Coll., 1912.

[Π]ΑΤΑΙkΙΩΝ

↑↑ 19·50 mm. 61·0 grains (3·95 grammes). Attic drachm. McClean Coll., Fitzwilliam Mus., Cambridge. [Pl. VII. 7.]

·Ι·ΑΝΗΣ

76 *β*. *Obv.*—Similar to preceding, but type larger and in lower relief.

Rev.—Amphora without lip between ΧΙΩΝ r. and ΓΛΑΥk•Σ l. in vine-wreath tied below.

Æ. ↑↑ 19·75 mm. 54·8 grains (3·55 grammes). My collection [Pl. VII. 8], published *Num. Chron.*, 1911, p. 93, No. 2.

77. *Obv.*—Squat-shaped Sphinx as above seated l. without exergual line in dotted border. No grapes.

Rev.—Amphora with or without lip between XI•N r. and bunch of grapes l. No magistrate's name, and no border.

Æ. ↑↑ 11·00 mm. 18·85 grains (1·22 grammes). Attic diobol (?). Berlin Cabinet, Imhoof-Blumer's *Kleinasiat. Münz.*, i, p. 102.

↑↑ 12·00 mm. 16·36 grains (1·06 grammes). Attic diobol (?). Berlin Cabinet, Imhoof-Blumer's *Monn. Grecques*, p. 297.

↑↑ 12·00 mm. 19·60 grains (1·27 grammes). Attic diobol (?). Munich Cabinet.

[Pl. VII. 9.]

In (1) the inscription is rendered XIOW, and (2) has no dotted border on *obv.* but the Sphinx is seated on a line.

The following bronze coins seem to be contemporaries of the last two silver types:

78. *Obv.*—Squat-shaped Sphinx like types Nos. 76–7, but in low relief, seated r. or l. Before it bunch of grapes. Dotted border.

Rev.—Amphora with or without lip between magistrate's name r. and XI•Σ l. Neither symbol nor border.

Æ. ↑↓ and ↑↑ 10·00 mm. 14·2 grains (0·92 gramme). Athens Cabinet, and Coll. in Public Library, Chios.

AΘHNA[I•Σ] *Obv.* has Sphinx r.

↑↑ 12·50 mm. 31·0 grains (2·01 grammes). My collection, found in Chios.

AMAN•[Σ] *Obv.* has Sphinx l.

↑↓ 14·50 mm. 39·7 grains (2·57 grammes). Berlin Cabinet.

HΓHM[ΩN] *Obv.* has Sphinx l.

↑↓ and ↑↑ Size ? Wt. ? Coll. in Public Library, Chios, and dealer's stock, Chios, 1913.

– – •NTI•Σ *Obv.* has Sphinx l. but no grapes.

79. *Obv.*—Naked horseman galloping l. and brandishing whip in uplifted r. hand.

Rev.—ΧΙΟΣ or ΧΙΟΝ to r. of thyrsus, adorned with fillets, standing upright in ivy-wreath tied below.

Æ. ↑↑ 20·00 mm. 150·5 grains (9·75 grammes). Athens Cabinet. Found in Delos with other Chian coins of imperial times, and published *J. Int. d'Arch. Num.*, 1911, p. 89.

↑↑ 21·00 mm. 69·4 grains (4·50 grammes). Berlin Cabinet, Imhoof-Blumer's *Monn. Grecques*, No. 136.

↑↑ 18·50 mm. 83·1 grains (5·39 grammes). Paris Cabinet, Waddington, No. 2021.

[Pl. VII. 14.]

↑↑ 20·50 mm. 167·6 grains (10·86 grammes). Brit. Mus., recent acquisition.

(1) and (2) have ΧΙΟΣ, and (3) and (4) ΧΙΟΝ to r. of thyrsus on reverse.

The drachms probably struck a little previous to, and coincident with, the accession of Augustus are the following:

80. *Obv.*—Sphinx, resembling that of type No. 69 with ΑΡΤΕΜΙΔΩΡΟΣ but in higher relief, seated l. on plain exergual line; both forelegs on ground. Before it bunch of grapes. The whole in dotted circle.

Rev.—Amphora with lip between ΡΑΒΙΡΙΟΣ r. and ΧΙ ΟΣ with crescent in field l.; sometimes star above it. The whole in dotted circle. Concave field.

Æ. ↑↑ (one specimen has ↑↓) 20·00–17·00 mm. 49·5–41·2 grains (3·21–2·67 grammes). Attic drachm, or Roman denarius, reduced. Brit. Mus. Cat. Ionia, Chios, No. 57, Paris Cabinet, Berlin Cabinet, &c.

81. *Obv.*—Small Sphinx of careless style seated r. on plain exergual line; both forelegs on ground. Around ΦΟΥΡ - - ΣΣΙΦΑΥΛΟΣΦΙΛΟΠΑΤΡΙΣ ς.

Rev.—Amphora without lip between ΔΙΟΓΕΝΗΣ l. and ΕΥΔΗΜΟΣ r. No border.
ΧΙΟ[Σ]

Æ. ↑← 19·00 mm. 58·3 grains (3·78 grammes). Attic drachm, or Roman denarius. Berlin Cabinet, published by Imhoof-Blumer, *Griechische Münzen*, No. 394. [Pl. VII. 10.]

82. *Obv.*—Sphinx, like type No. 80, seated r. or l. on plain exergual line. Before it bunch of grapes. Above ΣΕΒΑΣΤΟΥ ◠. The whole in dotted border.

Rev.—Amphora with lip between ΔΙΟΓΕΝΗΣ l. and ΕΥΔΗΜΟΣ r. No border.

Æ. ↑↑ (one specimen has ↑↓) 20·00–17·00 mm. 48·5–37·3 grains (3·14–2·42 grammes). Attic drachm, or Roman denarius, reduced. Brit. Mus. Cat. Ionia, Chios, No. 102, Hunt. Coll., Berlin Cabinet, and Paris Cabinet, illustrated. [Pl. VII. 11.]

The bronze coins that seem from their style to be contemporary with the above are the following:

83. *Obv.*—Sphinx, of style similar to type No. 82, seated l. on plain exergual line; both forelegs on ground. Before it bunch of grapes. The whole in dotted border.

Rev.—Amphora with lip between magistrate's name r. and ΧΙΟΣ l. No symbol. The whole in dotted border. Concave field.

Æ. ↑↑ 15·25 mm. 27·0 grains (1·75 grammes). Berlin Cabinet. [Pl. VII. 15.]
ΑΡΙΣΤΟΜ[ΑΧΟΣ?]

↑↑ 14·25–13·00 mm. 25·3–20·2 grains (1·64–1·31 grammes). Vienna Cabinet, my coll., and W. S. Lincoln's stock, 1913.
ΑΘΗΝΑΓ[ΟΡΑΣ]

↑↑ 15·00–12·00 mm. 26·6–15·3 grains (1·72–0·99 gramme). Berlin Cabinet (two specimens) and dealer's stock in Chios, 1913.
ΗΡΟΚΡΑΤ[ΗΣ]

↑↑ 15·50–13·00 mm. 28·0 grains (1·82 grammes). Berlin Cabinet, Sir H. Weber's Coll., E. T. Newell's Coll., and private coll. in Chios.

ΦΑΙΝΟΜ[ΕΝΟΣ ?]

84. *Obv.*—Squat-shaped Sphinx seated l. on palm-leaf wearing *modius*, and holding wreath in upraised farther forepaw.

Rev.—Amphora without lip with ΑΡΙΣΤΑΙΧΜΟΣ ς to l. and ΧΙΟΣ to r. in incuse circle.

Æ. ↑← (one specimen ↑↓) 15·00–13·50 mm. 34·2–31·8 grains (2·22–2·06 grammes). Brit. Mus. Cat. Ionia, Chios, No. 103, illustrated [Pl. VII. 16], Athens Cabinet, and Coll. in Public Library, Chios.

85. *Obv.*—Sphinx, similar to type No. 82, seated l. on plain exergual line. Before it winged caduceus. The whole in border of dots.

Rev.—Amphora with lip between ΑΠΟΛΛΩΝΙΟΥ ΧΙ to r. and ΙΕΡΩΝΥΜΟC ΟC to l. in shallow incuse circle.

Æ. ↑↑ 19·00–17·00 mm. 37·7–35·5 grains (2·44–2·30 grammes). Brit. Mus. Cat. Ionia, Chios, No. 106, Paris Cabinet, No. 5011, and Berlin Cabinet. (This specimen has a star between O and C of ΧΙΟC.)

86. *Obv.*—Sphinx of similar style seated l. on plain exergual line raising its farther forepaw. Dotted border.

Rev.—Amphora with lip between ΦΑΥΣΤΟΣ r. and ΧΙ ΟΣ with star l. Dotted border. Concave field.

Æ. ↑← 19·25 mm. 50·9 grains (3·30 grammes). Paris Cabinet, No. 5070.

↑← 18·50 mm. 53·9 grains (3·49 grammes). Vienna Cabinet.

87 *a*. *Obv.*—Sphinx of similar style, but lower relief, seated l. raising farther forepaw ? No border.

Rev.—Amphora with lip between X / N l. and I / N r. No magistrate's name. No border visible.

Æ. ↑↓ 22·75 mm. 60·7 grains (3·93 grammes). Vienna Cabinet.

87 *β*. *Obv.*—Sphinx l. as above, but with both forelegs on ground. Before it aplustre (?). Border of dots.

Rev.—Amphora with lip between [X / N] l. and I / N r. in border of dots. No magistrate's name.

Æ. ↑↑ 14·00 mm. Wt.? Dealer's stock in Chios, 1913.

The very late drachms with the name Antiochus are the following:

88. *Obv.*—Sphinx of very rude style seated l. on plain exergual line holding wreath in farther forepaw. In exergue ΦΗΣΙ[ΝΟΣ]. The whole in dotted border.

Rev.—Amphora with lip between ΒΑΣΙΛΕΩΣ / ΑΝΤΙΟΧΟΥ r. and ΔΩΡΟΝ l. The whole in olive-wreath tied to l.

Æ. ↑? 19·00 mm. 49·4 grains (3·20 grammes). Attic drachm, or Roman denarius, reduced. Paris Cabinet, Babelon's *Rois de Syrie*, p. 210, No. 1589. [Pl. VII. 12.]

↑? 18·00 mm. 45·5 grains (2·95 grammes). Paris Cabinet, Babelon's *Rois de Syrie*, p. 210, No. 1590.

↑? 20·50 mm. 42·3 grains (2·74 grammes). Paris Cabinet, Waddington, No. 2008.

↑? 19·00 mm. 30·1 grains (1·95 grammes). Vienna Cabinet.

89. *Obv.*—Sphinx, of still ruder style, seated l. on plain exergual line holding bunch of grapes (?) in farther forepaw. In exergue ΜΙΝΥ[ΚΙΟΣ ?] No border.

Rev.—Amphora without lip and, possibly, with a bunch of grapes countermarked upon the shoulder, between ΒΑCΙΛΕΩ[C] / ΑΝΤΙΟΧΟ[Υ] r. and ΔΩΡΟΝ l. The whole in dotted border.

Æ. ↑↓ 19·00 mm. 44·75 grains (2·90 grammes). Attic drachm, or Roman denarius, reduced. Berlin Cabinet, Imhoof-Blumer's *Griechische Münzen*, No. 399. [Pl. VII. 13.]

The remaining bronze coins without marks of value which appear to be of about the same date as the preceding are as follows:

90. *Obv.*—Sphinx, like type No. 88, seated l. on plain exergual line. Before it aplustre (?). Sometimes border of dots.

Rev.—Amphora with lip between AC/ΛENOC r. variously arranged, and XIOC l. No border. Concave field.

Æ. ↑← (one specimen has ↑↓) 18·50–16·75 mm. 62·9–35·9 grains (4·08–2·33 grammes). Brit. Mus. Cat. Ionia, Chios, No. 105, Hunterian Coll., Nos. 50–1, Paris, Athens, Munich, and Vienna Cabinets.

91 *a*. Same as preceding, but without symbol on obverse.

Æ. ↑← 12·00 mm. 12·96 grains (0·84 gramme). Vienna Cabinet.

91 *β*. *Obv.*—Sphinx seated l. holding bunch of grapes in farther forepaw. Border of dots.

Rev.—Kantharos with AC/ΛEN to l., and OC above ☾, and XIOC to r.

Æ. ↑← 13·50 mm. 18·05 grains (1·17 grammes). Berlin Cabinet.

↑← 13·25 mm. 20·8 grains (1·35 grammes). My collection.

92. *Obv.*—Sphinx, like type No. 88, seated r. on plain exergual line. Before it club. Border of dots.

Rev.—Amphora with lip between ○ to l. and ✕ to r.

Around TI·KΛAY·ΓOPΓIAΣ·ΔΩPOΘEOY·
Sometimes in shallow incuse circle, or concave field.

Æ. ↑↓ and ↑↑ 18·00–16·00 mm. 51·7–35·9 grains (3·35–2·33 grammes). Brit. Mus. Cat. Ionia, Chios, No. 104, Hunterian Coll., No. 49, Paris Cabinet, Waddington, No. 2020, illustrated [Pl. IX. 17], Athens Cabinet, found in Delos, and published *J. Int. d'Arch. Num.*, 1911, p. 93, &c.

93. *Obv.*—Sphinx, of better style than preceding and more like type No. 84, seated l. on plain exergual line. Before it thyrsus. No border.

Rev.—Amphora with lip. In field l. XIOC No magistrate's name, and no border.

Æ. ↑? 9·50 mm. 10·0 grains (0·65 gramme). Coll. B. Yakountchikoff. [Pl. VII. 18.]

94. *Obv.*—Sphinx, of slightly varying form, seated r. or l. on plain exergual line in dotted border.

Rev.—Thyrsus, standing upright in ivy-wreath showing a double row of leaves, with XIOC l. and magistrate's name r.

Æ. ↑← 10·00 mm. 23·2 grains (1·50 grammes). Brit. Mus. Cat. Ionia, Chios, No. 44.

ΑΘΗ - - Sphinx to l.

↑↓ 11·50 mm. Wt. ? Coll. in Public Library, Chios.

↑↓ 10·75 mm. 15·1 grains (0·98 gramme). My collection.

ЄCTI[AIOC?] Sphinx to r. raising farther forepaw.

↑↑ 10·00 mm. 16·1 grains (1·04 grammes). Brit. Mus. Cat. Ionia, Chios, No. 45. [Pl. VII. 19.]

ΗΓΗ - - Sphinx to r.

Before commenting as usual on the details of the types just described a few general remarks with regard to the issues selected for the opening years of this period are first due.

The question as to which coins preceded and which

immediately followed the exile in Pontus must remain largely a matter of conjecture. Still, it would come nearer to being decided if we could find a certain number of issues distinguished by some characteristic common to them all, and later than, or at least as late as, any of those ascribed to Period IX. In searching for such a characteristic I have been guided by the following considerations. The duration of the exile being so brief, it seems almost certain that the old types would have been revived after it, as already suggested, at any rate for a time. Bearing that in view it would then seem that we must look for some difference of technique rather than for a more or less important change in detail as our distinguishing mark. Now a considerable number of the late Chian coins are struck in much lower relief than any of those recorded hitherto, and it is this low relief, I think, that supplies the means of discriminating between the two groups of coins in question.

The prow on the obverse of some of the issues ascribed to the present period is a detail that cannot fail to attract attention because of its far greater prevalence later on. But a few coins bearing this addition to the main design have already been attributed to types Nos. 66–7 on account of their style, and its inauguration may therefore be said to belong to the last period. It is seen much more frequently now, however, and we appear to have reached a moment when the prow and the bunch of grapes were competing for the post of honour as distinctive emblem of the Sphinx, with the result still left uncertain. The drachms of type No. 69 nearly all have a prow on the obverse, sometimes accompanied by, and sometimes

without, the bunch of grapes, while only one issue of the earlier high-relief drachms is so distinguished (type No. 66 γ with ΜΗΤΡΟΔΩΡΟΣ). In the case of the bronze the contrary is the case, none of the issues of types Nos. 70–1 showing the prow, though several of those belonging to type No. 67 did so, but it is not at all certain that types Nos. 69, 70, and 71 are exact contemporaries.

The coins struck in low relief, whether they bear a prow or not, make no such demands for an extension of their period into the early years of the first century. Even the best executed among them are, on the whole, of later appearance than anything ascribed to Period IX, and are quite suitable for filling the gap, so far as their numbers will allow them to do so, between 84 B.C. and the uncertain date when types showing Roman influence began to be issued. This low relief is particularly noticeable in the case of the Sphinx's wing, which must have been, so to speak, sketched upon the die, instead of being boldly blocked out as formerly. Some of the intermediate types, such as Nos. 74 and 76 α in silver and most of Nos. 72 and 75 in bronze, are modelled in comparatively high relief, as well as those immediately connected with the accession of Augustus, as already observed. The small bronze type No. 71 is really the key to the whole arrangement on account of its similarity to type No. 67 of the last period, the close connexion between these two being undeniable. But since the same cannot be said of any of the drachms described under type No. 69 and their predecessors of type No. 66, it almost looks as if the first issues of the period now under review had consisted of bronze only. This theory is supported by the presence

of the large bronze pieces of type No. 70, so similar to the small type No. 71, by the absence of any names common to these two bronze types and the silver one No. 69, and by the occurrence of the prow symbol on the obverse of the only bronze issue that bears the same name as one of the drachms. This is type No. 73, which, as already pointed out, is of later style than No. 71, although the drachm with the same magistrate's name, ΔΕkΜΟΣ, is among the earliest issues of type No. 69. Since this is pure hypothesis, however, I am not pressing the point, as in the somewhat similar case of types Nos. 56–7 of Period VIII, but am giving the drachms the precedence in the usual manner.

Another almost inevitable consequence of this separation according to style of coins that are such near contemporaries is that a few of the magistrates' names are almost certain to occur in both periods. This will be found to be the case, and I look upon the four names noted below under this head as those of men who held office both before and after their banishment by Mithradates. The same remarks might of course be applied to the symbols, several of which, like the aplustre, caps and stars of the Dioscuri, and the head-dress of Isis, will be recognized here. But the probability of identity in these cases is not so great, at any rate not where the objects of fairly frequent occurrence, like the aplustre, are concerned.

No. 69. The issues of this group of drachms with the names ΑΡΤΕΜΙΔΩΡΟΣ, ΔΕkΜΟΣ, and ΣkΥΜΝΟΣ seem to be the earliest. [Pl. VII. 1.]

The style of the Sphinx is not bad, and recalls that of type No. 57 (Period VIII), rather than that of any variety of the later type, No. 66, which might have

been expected to have served as a model for these coins if there had been any really close connexion between them. The amphora throughout is of the long thin type with a lip, first met with on coins of type No. 66 *β*, but only occasionally then. The wreath, when it is used, is, like the obverse type, in very low relief, and in the case of the issue with ΔΕḰΜΟΣ it is composed of olive-leaves. On the one with ΛΕΩΝΙΔΗΣ [Pl. VII. 2], which represents the later and more individualistic portion of the group, an ivy-wreath is found. This form of wreath has already been noted once on the bronze type No. 67 with ΑΙΣΧΙΝΗΣ, and later on it will be seen fairly frequently.

I have unfortunately not seen the coin with ΑΣΦΑΛΗΣ, but I am including it among these issues on the strength of its symbol, a thyrsus. This emblem has so far only appeared once as a symbol (type No. 66 *β* with ΑΡΤΕΜΙΔΩΡΟΣ), but its use becomes fairly common in this period, though it extends over too long a time, so far as one can tell, to represent the same magistrate.

With regard to the magistrates whose names are recorded we may note *Ἀρτεμίδωρος*, as being the first of the four men whom I am supposing to have served in this period as well as in the last.[108] *Δέκμος* is one of the witnesses to the foreign element in the population referred to above. The name is no doubt a form of Decimus. *Μενεκράτης* has already been met with on one of the tetradrachms of Alexandrine types, but, as was observed in the comment on type No. 60, there can be no question of this drachm having been among

[108] See type No. 66 *β*.

its contemporaries. The Σκύμνος recorded here may quite well have been the geographer of that name as he flourished *circa* 90 B.C.

The lettering throughout is of the ordinary type with "apices", a little larger on the whole and, I think, later than anything included under type No. 66. The only unusual form is that of the Ω on the issues of Ἀρτεμίδωρος. Κ and Φ both have their uprights prolonged above and below the level of the other letters quite consistently, but the later form of ·Ι·, already noted in type No. 67, does not appear.

The weights, like the lettering, support my claim to place all these coins later than those I have attributed to the last period. The twenty-three specimens that I have been able to examine, representing this type and Nos. 74 and 76, its near contemporaries, average 51·9 grains (3·36 grammes), while, as was observed above when commenting on type No. 57, sixty-five specimens of types Nos. 63 and 66 average 56·2 grains (3·64 grammes). A few unusually heavy pieces stand out from the rest, such as those of Λεωνίδης in type No. 69, and of Ἀθήναιος and Φάνης in type No. 76 *a*, but they are much rarer than the similar exceptions in the earlier groups. On the whole the standard may be said to have sensibly depreciated at this time, although, judging from the occasional heavy pieces, it had probably not been officially reduced, and the coins were no doubt still reckoned as Attic drachms.[109] A striking illustration of the lower weights ruling

[109] Compare the Athenian drachms of the new style, *Brit. Mus. Cat. Attica*, No. 335, &c., some of which are only slightly earlier than the present type. These all weigh round about 63 grains (4·10 grammes).

among the coins that I am attributing to this period, as compared with those in the last, is afforded by the issues of Ἀρτεμίδωρος. Out of eight pieces known to me with this name, four belong to what I call the earlier style of type No. 66 β, and four to the later, characterized by its low relief and the prow symbol on the obverse. The former weigh 61·9, 61·0, 59·0, and 56·6 grains, and the latter 49·7, 47·2, 45·8, and 41·2 grains, the last specimen being pierced.

The new symbols to be noted are the spear, the thyrsus already alluded to above, the kithara, and the wreath. The spear on the issue of Λεωνίδης is unique, but there seems to be no doubt that the object in question is a spear [Pl. VII. 2]. It looks like the Persian type of weapon with an apple or pomegranate at the butt,[110] but it is difficult to say what significance it can have borne at Chios. The three other symbols may be looked upon as referring to the tutelary gods Apollo and Dionysus, whose statues appear at full length on some of the imperial bronze. The kithara is not seen again, but the thyrsus and wreath are widely used on the bronze coins that come between these drachms and the imperial issues. The cornucopiae, which also appeared in type No. 66 γ of the last period, may be taken as a link between these drachms and the small bronze type No. 71. The combination of aplustre and prow on the drachms of Δέκμος is curious, and indicative, to my mind, of the conventional use of the prow. It must have been regarded as so much a part of the type that no inconsistency was entailed in placing an aplustre

[110] Herodotus vii. 42.

above it. The kithara and spear on the issue of *Λεωνίδης* are different, and suggest the presence of two magistrates in addition to the one who signs his name in full. The bronze types Nos. 62 and 67 afford evidence of a similar nature, but I have not observed it *before* on a silver coin.

The die-positions vary, but include more instances of ↑← than have hitherto been noted on silver coins. In recording this position I have not attempted at any time to distinguish between ↑← and ↑→.

No. 70 *α* and *β*. The attribution of these rare coins is rather a difficulty. Enough has already been said about their similarity to types Nos. 69 and 71 to explain my reason for placing them at the beginning of this period. The winged caduceus in place of an exergual line [Pl. VII. 3] connects the group with type No. 67 on the one hand and with No. 71 on the other. The only point in which these large coins differ from the latter is the absence of a separate symbol, but in that they agree with the earlier type. The names include ΜΗΤΡΟΔΩΡΟΣ, which is that of the second of the four magistrates whose coins would occur both in this period and the last supposing that the present type is correctly placed.

The lettering is like that of the last type in every particular where comparisons are possible. The weights and die-positions are very regular, the former unusually so for a bronze series. If, as I have suggested, these coins were struck for a time in place of silver drachms this is to be expected, as more attention than usual would probably then have been given to their weights.

The sub-type No. 70 *β* is the third instance encountered so far of a coin being struck without a

magistrate's name after the use of names had been introduced.[111] From now onwards this peculiarity occurs so frequently as not to be worth noting.

No. 71. To appreciate fully the importance that I am attaching to this otherwise insignificant type I must invite a comparison of the coins illustrated on **Pl. VI. 17–19** of the present essay, with the one figured on **Pl. VII. 4** of the present section. The general resemblance and yet strong points of difference between the two types will I hope then be clear, as well as my contention that the latter are of sufficient importance to justify their being used to signalize a new era. In addition to the low relief we have here a dotted circle on the obverse and no border on the reverse, but a symbol between the letters **XI OΣ** to the left of the amphora. Certain instances will be observed, both in this type and the next, where the Sphinx is still seated on various objects as in type No. 67. Now that symbols on the reverse have become the rule with bronze issues it is hard to account for this object unless reference to a third magistrate be intended. The amphora does not as a rule show the lip that we have come to associate with the late coins, but this is not by any means a constant characteristic. The type is the most homogeneous of any of those ascribed to the present period, and comprises the greatest number of names. The low relief has rendered the coins particularly susceptible to wear, and, although certain issues among them are not at all rare, it is difficult to find a really well-preserved specimen. The prow is not seen on any of the issues. The *modius* or *kalathos*,

[111] See types Nos. 47 *a* and 53 *a*.

which appears occasionally from now onwards on the head of the Sphinx,[112] is so frequently seen on late coins in connexion with so many forms of worship that it is perhaps hardly worth mentioning. But the object is of especial interest at Chios as supporting the theory, put forward in the introduction to this study and in the comments on some of the archaic silver coins,[113] that the Sphinx has a strong claim to be regarded as a chthonic emblem in its origin. No doubt its Dionysiac aspect had prevailed since the primitive days, but its representation here with the head-dress proper to the gods of the lower world makes it look as if the other view had survived as well. A simpler explanation may be that this particular rendering of the Sphinx is due to the slavish copying of some statue at a time when the true meaning of all such symbolism had been forgotten.[114]

Among the names[115] are those of the two remaining magistrates whose coins I am dividing between the last period and this one, ΑΠΟΛΛΩΝ[ΙΔΗΣ] and ΓΟΡΓΙΑΣ. Under type No. 67 it was pointed out that *Γοργίας*, like *Μητρόδωρος*, was probably among the latest of his group, so that the chances in favour of his

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[112] It seems to have been used first on one of the drachms with ΚΟΡΩΝΟΣ, type No. 66 γ, above.

[113] *Num. Chron.*, 1915, pp. 5 and 34. With regard to the lotus-flower and cock's head symbols, and the spiral ornament on the Sphinx's head.

[114] Though not quite a parallel case, see Beulé's *Monn. d'Athènes*, pp. 246-8, for the adaptation of the head-dress of Isis to late representations of Ceres.

[115] Mionnet's reading ΑΣΠΑΡΟΣ, *Méd. grecques*, vi, p. 389, No. 24, was probably taken from a coin of this type with ΑΣΠΑΣΙΟΣ.

reappearing here would consequently be increased. ΓΥΘ[Ι]ΩΝ is an unlikely looking name, though the Γ is clear on the coin. It may be that ΠΥΘΙΩΝ was the correct form. ΠΥΘΙΟΣ is also doubtful, being the attribute of a god, but it is probably a late or illiterate rendering of ΠΥΘΕΟΣ, which is fairly common on Ionian coins.[116]

The lettering is neat and the forms used are in complete accord with those of types Nos. 69 and 70, and are later, on the whole, than those of type No. 67. "Apices", which are here in general use, were only occasionally met with on coins of the last-named type, and Θ and Ω, which were exceptional before, have now almost entirely supplanted Θ and Ω. The weights are, generally speaking, lower than in type No. 67, and the die-positions are more regular. Among the symbols the owl might be reckoned as a new-comer, but it is uncertain. The almost regular employment of the caps and stars of the Dioscuri throughout the type is worthy of note, especially as they do not appear again. The symbol has been seen once before, however, on some of the drachms with ΖΗΝΙΣ (type No. 66 *β*), and the issue with ΜΕΝΕΚΛΗΣ (type No. 66 *γ*) had the twin stars alone. We must suppose that the four issues of the present type, and the one of the next one with the caps and stars, were all struck during the reign of the same eponymous magistrate, like the similar and still larger groups of types Nos. 62 and 67; and that, as suggested above, he may possibly have officiated during the last period as well.[117] A similar comparison

[116] *Brit. Mus. Cat. Ionia, Erythrae*, No. 191; *Clazomenae*, Nos. 22 and 49; and *Colophon*, No. 43.

[117] The Rhodian series provides a very similar case in period

may be made between the cornucopiae of this type and No. 69, and the drachm with ΔΕΡΚΥΛΟΣ (type No. 66 γ).

No. 72. These coins can hardly be called a type, as they differ so much among themselves in minor details. Still, they have a better claim than any other group to be considered the successors of the last one. The wreath, sometimes seen on the reverses, takes quite a different form from any of those used in type No. 67. The name ΑΡΓΗΟΣ is presumably an illiterate rendering of ΑΡΓΕΙΟΣ. In a local inscription apparently belonging to the first century B.C. (*C. I. G.*, No. 2220) a *Διόδωρος Ανσικράτου* is mentioned as having been honoured with a gold wreath for piety towards the gods and for good services to the state. It is just possible that the individuals referred to may be this *Διόδωρος* and the *Ανσικράτης* of type No. 65. The *Σώστρατος* of this type no doubt also struck the coins with the same name described under type No. 75, as the latter cannot be very much later than this.

In contrast to the last type all the symbols used here are different. They have also all occurred on previous types, the eagle as far back as the drachms of No. 66 β. The coins of *Πτολεμαῖος* with an ear of corn on the obverse and a star on the reverse exhibit a feature that was seen frequently on the bronze type No. 62 α, but has not occurred since. The way in which the star was then used, in combination with nearly every other symbol of the series, its reappearance in similar fashion here, and its occasional employment in Imperial times

166–88 B.C., where five drachms with different names occur bearing the same symbol, the head dress of Isis. See G. F. Hill's *Handbook of Greek and Roman Coins*, pp. 120–1.

when symbols were practically non-existent, looks as if the star had been some sort of mint-mark and not a magistrate's signet at all. The club also seems to have been of a similar nature.

No. 73. This issue, as has already been observed, shows more justification for being considered a contemporary of type No. 69 than any of the foregoing. It was obviously a companion issue to the drachm with the same name, even the wreath symbol appearing on both. This can only be said of one other bronze coin of the present period, viz. the one with the name ΑΘΗΝΑ[Ι•Σ] to be noted below.

No. 74. This type carries on the individualistic designs among drachms referred to in the opening remarks, and first noted among the later issues of No. 69. The features that principally distinguish the two issues described separately here are their lettering, and the absence both of the prow on the obverse and of a magistrate's symbol on the reverse. The former with ΠΑΥΣΑΝΙΑΣ provides one of the rare instances of a drachm with Sphinx to right. The latter with ΣΙΛΛΙΣ [Pl. VII. 6] is the second foreign name to be noted in the period. According to Pape the name hails from Tyre.

The lettering is curious, though not so distinctive as that of the next group of drachms. The "apices" are so faintly indicated as to be barely noticeable. The Ο is of the same size as the other letters, a sure sign of lateness and a form only encountered once in the Chian series hitherto, on the bronze coin of type No. 72 with ΑΡΓΗΟΣ. The Υ also has the late form V. Otherwise the lettering might be considered earlier than that of type No. 69.

The die-positions do not include any placed ↑←, which will have been observed occasionally in the three previous bronze types and in the one that I take to be the contemporary of these drachms.

No. 75. These few bronze issues being characterized by the large O, by the absence of a symbol, and most of them by letters without "apices", I am suggesting that they may be the contemporaries of the drachms just described. They are not all quite consistent in these points, but it is difficult to decide where else to place those that show divergences.

Some of the issues with the name ΑΡΙΣΤΟϏΛΗΣ have a prow on the obverse in an unusual position, exactly like the one on the drachms of type No. 69 with ΜΕΝΕϏΡΑΤΗΣ. They also provide the only instance known to me among Chian coins of a *sigma* showing the square form Ϲ, intermediate between Σ and C.

The group is connected with type No. 72 on the one hand and No. 78 on the other by the different designs shown on the coins signed by the magistrates ΣΩΣΤΡΑΤΟΣ and ΗΓΗΜ[ΩΝ]. *Ἡγήμων* must rank as a new name in the Chian annals, though it may well be only a variant of the form *Ἡγέμων* recorded in the last period. Since there is no mention in the Wellenheim Cat. of a wreath on the reverse of the coin with the name ΑΙΔΗΜΟ - -, which seems to be unique, it must necessarily fall into one of the four bronze groups belonging to this period. The reading of the name seems very uncertain.

No. 76 *α* is an unusually uniform type for the period and looks as if it had been separated from its predecessors by a few years. Even the weights agree in

being above the average of drachms struck at this time. But there can be no doubt, I think, as to the lateness of the issues. Their style alone declares it [Pl. VII. 7]. The Sphinx is uglier and worse drawn than on any coin yet examined, though the relief is higher than in most of these late issues. The amphora, too, is of a very late type, though without a lip, and the wreath is a degraded form of vine-wreath. The absence of symbols also seems to be a sign of the times, in spite of there being apparently only one specimen extant of each of these issues. Even allowing for the fact that certain issues were constantly being made without a symbol, as in type No. 61 with ΑΓΓΕΛΙΣΚΟΣ, No. 63 with ΑΛΚΙΜΑΧΟΣ, No. 66 *a* with ΑΝΔΡΩ-ΝΑΞ &c., it seems highly improbable that we should be confronted here with a whole series of exceptions, extended moreover to the contemporary bronze coinage as well. It really looks as if we were in the presence of some change in the administration of the mint. The prow has temporarily disappeared from the obverse, and the bunch of grapes once more remains without a rival, though only for a while.

There is nothing particular to remark about the names. The restoration [Π]ΑΤΑΙΚΙΩΝ seems obvious, for, in addition to being a well-known Greek name of wide distribution, it has actually been recorded at Chios on a local inscription.[118]

The most remarkable feature of the group is its lettering, which is quite consistent throughout. The letters are carelessly formed and smaller than is usual at this time, and in some ways they look earlier than

[118] Collitz and Bechtel, *loc. cit.*, No. 5679.

those on the other drachms already ascribed to this period. There are no "apices", for instance; the Θ is made smaller than its fellows, and, perhaps by accident in the only case where it occurs, has no dot; the O is invariably rendered by a dot only; the V of type No. 74 is replaced by Y. With the exception of the O it is more on account of its style than of its particular forms that this lettering is remarkable, and because it has appeared once before in the Chian series. This was on the early drachms of *Ἀρτεμίδωρος* as described under type No. 66 *β*, in which case the lettering seems to have been in the nature of an experiment and, by a chance, may have served as a model for the present group.[119]

It is difficult to account for such sudden and wholesale changes except on the supposition that there was a temporary interruption of the coinage just previous to the issues represented by types Nos. 76–8 and perhaps No. 79 as well. But there is no indication from an historical point of view as to what can have caused this interruption.

No. 76 *β*. This sub-type, though in lower relief than the last and of somewhat bolder design [Pl. VII. 8], is evidently its near contemporary. This is shown, I think, by the style of the Sphinx and amphora, and by the lettering. In one point, however, the unique coin in question differs not only from the previous

[119] The occurrence of O in the form of a dot appears to be sporadic both in time and place. Mr. G. F. Hill has drawn attention to it on coins of Audoleon of Paeonia, 315–268 B.C. (*Handbook of Greek and Roman Coins*, p. 212), and it is found even earlier at Tarentum on a gold coin struck by Alexander the Molossian in 334 B.C. (*Horsemen of Tarentum*, p. 85, No. 2).

sub-type but from every other Chian issue hitherto described. It will be seen to bear the word ΧΙΩΝ on the reverse in place of ΧΙΟΣ, which had been the established form of inscription since letters first appeared upon the coinage. The ethnic in the genitive plural was the form finally adopted for the Imperial coinage, though the old and, for the Asiatic coast, uncommon place-name in the nominative singular held its own for a little while among the earliest of the new bronze pieces. On the assumption, then, that no silver was struck at Chios after the accession of Augustus we seem to have in this drachm the last autonomous issue that has survived, with the possible exception of type No. 80.

The way in which the magistrate's name is written on this coin, ΓΛΑΥΚΟΣ, is a proof that the Ionic dialect was no longer employed at Chios, for the same name appears under the form ΓΛΑΟΚΟΣ at Erythrae in the previous century (*Brit. Mus. Cat. Ionia, Erythrae*, No. 150).

No. 77. The style of these small pieces [Pl. VII. 9], their lettering, and everything about them mark them as the contemporaries of type No. 76 *α* and *β*, which seems to have belonged to a period of some activity. As will be seen these coins bear neither magistrate's name nor symbol, for the bunch of grapes on the reverse must not, I think, be regarded as the latter. Two out of the three specimens known bear what is presumably a blundered inscription ΧΙ•Ν, the Berlin specimen with ΧΙΟΝ appearing to show, although not decisively, that the usual form of inscription was intended.

Dr. Imhoof-Blumer has called these coins hemi-

drachms, but the weights are really too low for that denomination even at this period of degraded standards. Besides, as I have pointed out, the drachms of type No. 76 *α* and *β*, the suggested contemporaries of the present type, weigh considerably more on the average than the bulk of their immediate predecessors. These pieces, especially the one now at Munich, represent a full third of the drachms in question, and it therefore seems fair to assume that the old Ionic subdivision had been momentarily revived. A precedent for this is afforded by the mint of Erythrae, where Attic diobols were struck during the period 200–133 B.C. and possibly later as well.[120]

The die-positions, being all ↑↑, agree with those of type No. 76 which show a similar uniformity.

No. 78. Like the last type these bronze coins show all the characteristics of type No. 76. With regard to the magistrates whose names they record we may restore ΑΘΗΝΑ - - to *Ἀθήναιος* on the strength of the drachm with that name, and *Ἄμανος*, a Jewish name according to Pape, is another proof of the mixed nature of the Chian population at this time. This *Ἄμανος* may have been one of the colonists who seem to have aroused the sympathies of Herod. Both sizes and weights are very irregular.

No. 79. This rare coin betrays undoubted signs of Roman influence in its obverse type, as already observed, and makes a rude break in the hitherto uniform procession of Sphinxes. The substitution of Ν for Σ in the inscriptions of two out of the four specimens described suggests a connexion with the

[120] *Brit. Mus. Cat. Ionia, Erythrae*, Nos. 149–52 and 198–9.

diobols of type No. 77 and their corresponding drachms. This would mean, supposing that my attribution of the group in question is correct, that these agonistic coins were struck some time between 50 and 30 B.C. They are the forerunners of the well-known Imperial issues of Chios with a figure of Homer on the reverse.

The thyrsus adorned with fillets, which here forms the reverse type, may be compared with the symbol on the drachms of type No. 69 with ΑΣΦΑΛΗΣ and ΛΕΩΝΙΔΗΣ, and on a small bronze coin described below (type No. 93). The reverse of type No. 94 is also very similar to this one.

Nos. 80–2. We now come to the drachms that may fairly be considered to belong to the years bordering upon the accession of Augustus, which event I am supposing to have been commemorated by the issue of type No. 82 [Pl. VII. 11]. No. 80 falls into this category because of its style, lettering, and weight, which so closely resemble those of No. 82, and No. 81 [Pl. VII. 10] because of the magistrates' names that it bears.

The style of these coins has been referred to above. It seems reasonable to suppose that some effort should have been made to produce the best possible work under the circumstances, and, although the results are not remarkable, the obverse designs of types Nos. 80 and 82, at least, are an improvement over those of the types just described. These two issues may be said to resemble the best specimens of No. 69 more than any of the intervening coins described here. The concave field of No. 80 suggests that some even earlier issue had been taken as a model, for this feature has not been noticeable since type No. 63 β, although there were traces of it in Nos. 69 and 73.

The lettering of all three types will be seen to have reverted to the more usual forms, after the vagaries of types Nos. 76 and 78. In some ways it may even be termed archaistic, as witness the Ε with three bars of equal length in No. 82, and the Φ in No. 81 in place of ϕ or ·Ι·, so much more generally employed at this time. On the other hand, the Υ of type No. 76 has gone back to the late form V, already noted on No. 74.

It is clear from the number of specimens known belonging to types Nos. 80 and 82, and from the way in which their weights agree, that a sensible reduction must now have been made in the standard. The heaviest specimen that I have noticed is one of the former type from Paris which weighs 49·5 grains (3·21 grammes). This denotes a much reduced *denarius*, not to speak of an Attic drachm, and may be compared with the Syrian silver coins of Nero's reign (Regling, *Z. f. N.*, xxxii. (1915) 146), marked ΔΡΑΧΜΗ, and those of Plarasa and Aphrodisias of the first century B.C. (*Brit. Mus. Cat. Caria and Islands, Plarasa*, Nos. 6–13) which weigh from 56·1 to 48·9 grains (3·63–3·17 grammes). No. 81, it is true, nearly reaches the level of type No. 76 *α*, which is unusually high even for an autonomous issue of the first century B.C., but it is represented by a single piece only. Moreover, as it was a special issue of an honorific nature, the mint officials may have been a little more generous in its case than usual.

ΡΑΒΙΡΙΟΣ is the second Roman name to be recorded among the Chian magistrates, and his issue is remarkable as again showing symbols on the reverse. The crescent has not been so used before, and of course may be the magistrate's personal signet, though it appears

on one of the three-assaria issues of much later date, but it will be noted that the presence of the star, which also figures here, is not constant. This seems to confirm the evidence of type No. 62 *a*, which served to show that the star was more probably a mint-mark than a magistrate's symbol.[121] Why symbols should suddenly have been reintroduced on these drachms and on some of the bronze of about the same time, after a considerable period during which their use was dispensed with, I am unable to suggest.

The name of the public benefactor in type No. 81, whom I am supposing to have been a Roman on account of the form in which his name is written, is unfortunately incomplete. Herr R. Münsterberg, in his most valuable catalogue of magistrates' names on Greek coins to which I have referred more than once, suggests (p. 264) that the inscription might be restored to *Φούρ[ιος Γέ]σσι(ος) Φάϋλος Φιλόπατρις*, which is very plausible. It may be remarked that some bronze coins of Smyrna, struck during the reign of Nero (*Brit. Mus. Cat. Ionia, Smyrna*, Nos. 285–7), bear the inscription Ă ΓΕΣΣΙΟΣ ·Ι·ΙΛΟΠΑΤΡΙΣ on the reverse. Although they are of later date than this unique coin of Chios there must be some connexion between the Gessii concerned.[122]

With regard to type No. 82 Dr. Imhoof-Blumer observes in *Griechische Münzen*, No. 395, that the reading ΣΕΒΑΣΤΟΥ is inaccurate, and suggests ΣΕΒΑΣΤΟΣ in its place. Dr. Imhoof must have seen

[121] See remarks under type No. 72.

[122] The Gessius of Smyrna was no doubt Gessius Florus, the procurator of Judaea in Nero's reign, who was a native of Clazomenae.

some badly preserved specimens, for, as Pl. VII. 11 shows, there is no doubt whatever that the last letter of the obverse inscription is Y. The complete reading of the inscription may have been *Διογένης* (*καὶ*) *Εὔδημος* (*ἄρχοντες* or *στρατηγοὶ τοῦ*) *Σεβαστοῦ*. The actual title of the Chian magistrates at this time is not known for certain, though the phrase ΕΠΙ ΑΡΧ of the Imperial coinage is in favour of the former title. They were probably called *στρατηγοί* in the early oligarchical days,[123] and a late inscription already referred to (*C. I. G.*, No. 2221 b) makes use of this title, and even differentiates between first and second *στρατηγός*.

It is worthy of note that the only cases in which two magistrates' names appear in full on the Chian coinage are those of the silver issues which we can describe with certainty as non-autonomous. There may be some connexion between this and the reintroduction of symbols referred to above. The traditional use of the bunch of grapes may be said to cease with these issues of Augustus after having figured on nearly every Chian coin during the previous 450 years. It will be observed on all the issues of the next bronze type—No. 83—which I look upon as the contemporaries of these drachms, and it seems to have been revived on a few of the first imperial bronze pieces, after which it disappears.

No. 83. These bronze coins [Pl. VII. 15] are a fairly uniform group, and have all the appearance, besides, of belonging to early imperial times. They are neatly executed, and their style and lettering, together with the use of the bunch of grapes, make it

[123] Herodotus v. 38. See above, p. 46 of *Num. Chron.*, 1915.

evident that they are contemporaries of the drachms just described. The concave field recalls type No. 80, and the amphora is like that on the drachms of type No. 76 and its allied groups. It is a curious fact that all these coins show irregular die-positions. They are only moderately rare.

The magistrates' names are all incomplete, but susceptible of restoration to names already familiar in the Chian series. This even includes the last, ΦΑΙΝΟΜ[ΕΝΟΣ], if I was right in my conjecture as to the correct reading of the little coin described under type No. 65.

Nos. 84–6 comprise some diversified types which I take to be later than the last. Their style shows a beginning of the deterioration that is soon to become very marked [Pl. VII. 16], and the Sphinx with the raised forepaw appears again after a considerable interval. The names include the first instance of a patronymic attached to a Greek name, and another Latin name ΦΑΥΣΤΟΣ, though like the two others already noted it is used in the Greek manner. Mionnet's doubtful reading ΛΥΣΤΟΣ may be traced to a coin of this type. The lettering supplies the first lunate *sigma* so far met with, apart from the doubtful exception in one of the monograms of type No. 59 β (Alexandrine tetradrachms); and from now onwards the Ο is no longer made smaller than the other letters.

The sizes and weights, being both increased, are indicative of a time when silver was no longer being struck.

The die-positions, both here and in types Nos. 90–91 β, show a preference for ↑←, which up to this point has been exceptional.

Symbols appear again as observed under type No. 80, and are all objects that have already served in this way. The star is to be noted, in addition to the winged caduceus, on one of the three specimens representing type No. 85, but as the only symbol on type No. 86.

No. 87 *α* and *β*. These types without magistrates' names, and both represented by a single piece in indifferent condition, reintroduce the later form of inscription with ΧΙΠΝ, first noticed under type No. 76 *β*. The former of the two recalls the coins of type No. 70 of similar size. In fact, the resemblance between them and the evidently late character of the present types made me hesitate in attributing type No. 70 to the beginning of this period. But, on the whole, I think that the points of difference which they show are sufficiently marked. Apart from the dissimilar inscriptions, there is no bunch of grapes on these coins, and the weight of the large one is very much below that of the apparently carefully regulated flans of type No. 70.

The Π of the inscription in No. 87 *α* is a very late form, and not at all in keeping with the lettering mostly employed on coins of this period. A still earlier and isolated instance of this Ω has already been noted on type No. 62 *β*.

Nos. 88–9. These interesting coins have already been pretty fully discussed, but a few more remarks with regard to their style seem to be called for. The wreath on the reverse of No. 88, tied to left, is quite a new feature among the Chian issues and does not appear again. The form of amphora used, besides being precisely the same as that on the bronze types Nos. 90–2, and very similar to that on the drachms

with ΣΕΒΑΣΤΟΥ, will also be found on one of the earliest three-assaria pieces, which is in support of the date suggested for the type.

With regard to No. 89, the Sphinx, apart from its wing, is very similar to that found on one of the earliest Homereia, and the latter coin must be placed among the first so-called imperial issues because of the word ΧΙΟC on its reverse. The amphora is of a different type from that on No. 88, but one which may be seen to have alternated with the latter throughout this period [Pl. VII. 1, 2, 6, &c.]. Finally, the bunch of grapes countermarked upon the amphora, if correctly described, offers a curious parallel with one of the earliest pieces of one assarion also distinguished by the word ΧΙΟΣ, and undoubtedly of the Augustan period so far as one can judge. The magistrates' names are inscribed in the most unusual manner on the obverse. The former, ΦΗΣΙ[ΝΟΣ],[124] is a known Chian name which it is interesting to meet

[124] The occurrence of this name on a local inscription has been referred to above, note 106. There appears to be some doubt as to its proper accentuation. Pape gives *Φησῖνος*, probably influenced by the alternative form *Φησεῖνος* which is found on early imperial coins of Lebedus (Kl. M. 74) and Teos (B. M. 76-8), Boeckh suggests *Φήσινος* or *Φησινός*, and Dr. A. M. Vlasto, a local authority (*Χιακά*, p. 67), prefers the last. In type No. 50 I followed Pape, and consequently preserve his accentuation in this period, but I feel that *Φησινός* is more in keeping with the Ionic accent as exemplified by *Ἀθηνικῶν*, *Ἀρτεμῆς*, and *Φαινομενός*. The pet names of Modern Greek, which are almost as numerous and varied as those of the ancient language, include many forms peculiar to Chios. It is a curious fact that these forms, unlike the corresponding ones in other dialects, invariably bear their stress accent on the last syllable in the same way as the ancient names just cited bore their unusual tonic accent. For instance, *Ἰωάννης* = usually *Γιάννης*, but in Chios, *Ζυννῆς*. *Κωνσταντῖνος* = *Κῶσταs* or *Κῶστος*, but in Chios, *Κωστῆς*, &c.

at this late period in the island's history. It was first recorded on the coins of Period VII, 412–334 B.C. If the restoration suggested for the latter name, MINY[KIOC], be correct it would add to the list of Roman names already indicated.

The lettering presents a curious mixture of forms, and is of an altogether later type on No. 89 than on No. 88. The uncial Є now makes its first appearance, C takes the place of Σ, but Ω has the form ∩ as above, where ω might have been expected. But this does not imply that the coin bearing the latter forms must necessarily be of later date than the one with the earlier letters. Attention need only be called once more to the bronze types Nos. 90–2, where the same inconsistency will be found. It was characteristic of this transitional period. The weights seem to represent the same standard as the coins of types Nos. 80 and 82.

The present is a convenient opportunity for tabulating the average weights of all the Attic drachms described since that system was introduced, as suggested, in the late third century B.C.

Period VIII. Type No. 57 (7 specimens, of which 1 pierced). 62·5 grains (4·047 grammes).
Period IX. Type No. 61 (4 specimens). 64·4 grains (4·17 grammes).
Period IX. Types Nos. 63 and 66 (65 specimens, of which 2 pierced). 56·2 grains (3·64 grammes).
Period X. Types Nos. 69, 74, and 76 (23 specimens, of which 1 pierced). 51·9 grains (3·36 grammes).
Period X. Type No. 80 (5 specimens). 46·0 grains (2·98 grammes).
Period X. Type No. 81 (1 specimen). 58·3 grains (3·78 grammes).
Period X. Type No. 82 (6 specimens). 41·1 grains (2·66 grammes).
Period X. Types Nos. 88-9 (5 specimens). 42·4 grains (2·75 grammes).

Nos. 90–2. The style of these coins has already been referred to more than once. It supports their attribution, as suggested in the introduction to this section, to a later portion of this period than any of the preceding bronze types. They show the same peculiarity of fabric as types Nos. 83–5 in the concave field or incuse circle of their reverses.

The lettering of Nos. 90–91 *β* is also more careless than that of any contemporary issue except No. 89, with which it has already been compared. In addition to Є and C, it provides the somewhat uncommon form /·\ for M. The similarly formed A is typical of the first century A.D. and may well have come into use as early as this.

The two small sub-types No. 91 *α* and *β* are very rare, and interesting as showing a revival of the old liking for two sizes of bronze coins. This has especial force in the present case as the magistrate's name also recalls an earlier period of the Chian mint.

No. 92 provides another instance of a patronymic being used in the rendering of a magistrate's name. The name itself has already been discussed, and the magistrate is the one whose genealogy I have attempted to trace from the early portion of Period IX (type No. 63 *α*). This evidence is of interest in view of the theory that is lately gaining ground to the effect that there was a tendency in ancient times to preserve the office of moneyer or mint magistrate in certain families, possibly on account of their wealth (Dr. G. Macdonald's *Evolution of Coinage*, p. 13). The lettering in this case is very carefully done, and the words are separated by stops. Two forms of *sigma* are to be seen on these coins, but their concurrence is not an uncommon

feature at this period, although it only appears on one other Chian issue (type No. 96 *a*, the first three-assaria piece to be described below).

No. 93. I am placing this unique little coin after the foregoing because of the C in the inscription. This is not an infallible test as a rule, but the form in question is so little used at Chios down to this time that it may be taken as a guide where other signs are lacking. The style of the coin, so far as can be seen [Pl. VII. 18], is better than that of its companions here, but the thyrsus seems to establish a link with them.

It is quite the lightest piece that I have come across.

No. 94 is another fairly uniform group in which the thyrsus in an ivy-wreath appears on the reverse as in type No. 79. The style of the Sphinx comes very near to that on some of the early bronze issues with named denominations, especially in the case of the issue with AΘH - -.

The names are unfortunately not so easily restored as those of type No. 83, though they all three suggest well-known Chian magistrates, but ЄCTI[AIOC], at least, seems certain. The British Museum Catalogue reading HΓIΠ - must be corrected to HΓH - - [Pl. VII. 19].

APPENDIX.—*List of magistrates' names belonging to coins of Period X, showing the varieties on which they occur.*

	drachm.	*large bronze.*	*med. bronze.*	*small bronze.*
Ἀγ[γ]ε- -	—	70 *a*	—	—
Ἀθη- -	—	—	—	94
Ἀθηναγ[όρας]	—	—	83	—
Ἀθήναιος	76 *a*	—	—	78
Ἄμανος	—	—	78	—
Ἀπολλων[ίδης]	—	—	71	—
Ἀργῆος	—	—	72	—
Ἀρίσταιχμος	—	—	84	—
Ἀριστοκλῆς	—	—	75	—
Ἀριστόμ[αχος?] . . .	—	—	83	—
Ἀρτεμίδωρος	69	—	—	—
Ἄσμενος	—	90	—	91 *a* and *β*
Ἀσπάσιος	—	—	71	—
Ἀσφάλης	69 (?)	—	—	—
Γλαῦκος	76 *β*	—	—	—
Γοργίας	—	—	71	—
Δέκμος	69	—	73	—
Διογένης	81 and 82	—	—	—
Διόδωρος	—	—	72	—
Διονυ- -	—	70 *a*	—	—
Ἐστι[αῖος?]	—	—	—	94
Εὔδημος	81 and 82	—	—	—
Ἡγη- -	—	—	—	94
Ἡγήμ[ων]	—	—	75 and 78	—
Ἡροκράτ[ης]	—	—	83	—
Θεόδωρος	—	—	71	—
Ἱερώνυμος Ἀπολλωνίου .	—	85	—	—
Λεωνίδης . . . : . .	69	—	—	—
Μενεκράτης	69	—	—	—
Μένιππος	—	—	72	—
Μηνόδωρος	—	—	71	—
Μητρόδωρος	—	70 *a*	—	—
Μινύ[κιος?]	89	—	—	—
Μοσχίων	69	—	—	—
[Π]αταικίων	76 *a*	—	—	—
Παυσανίας	74	—	—	—
Πτολεμαῖος	—	—	72	—
Πύθιος	—	—	71	—
Ῥαβίριος	80	—	—	—
Σίλλις	74	—	—	—
Σκύμνος	69	—	—	—
Σωσίβιος	—	—	71	—
Σωσίνικος	—	—	75	—
Σώστρατος	—	—	72 and 75	—
Τι·Κλαύ·Γοργίας·Δωροθέου	—	92	—	—
Φαινομ[ενός]	—	—	83	—
Φάνης	76 *a*	—	—	—
Φαῦστος	—	86	—	—
Φησῖ[νος]	88	—	—	—
- - ὀντιος	—	—	78	—
Γυθ[ί]ων	—	—	71	—
ΑΙΔΗΜΟ - - . . .	—	—	(?)	—

The figures, 69, &c., indicate the types under which the coins are described above.

CHRONOLOGICAL ARRANGEMENT OF THE COINS OF CHIOS; PART V.

(See Plates VIII, IX.)

Period XI. Reign of Augustus—A. D. 268.

Although Chios was not officially merged in the Roman Empire till the end of Trajan's reign, and preserved her title of free city till at least the time of Vespasian,[125] she cannot be said to have had an independent history after the accession of Augustus. For better or for worse the island now followed the fortunes of Rome, and there is no local event of any importance to record. The general desire to be recognized as a citizen of the Empire gradually but effectively killed the Greek municipal spirit, although many outward forms of the old order were preserved.

Among these may be reckoned certain characteristics of the new coinage. From most points of view this coinage may fairly be called imperial, though it never bears the reigning emperor's head or name. Its fabric and general appearance are much the same as those of the coins turned out by the other mints of the Asiatic coast at this time, and it introduces us to several new reverse types, some of them significant of the age, such as the full-length figures of tutelary gods. But,

[125] Pliny, *Hist. Nat.* v. 38.

in spite of all innovations, the Sphinx remains the only obverse device throughout the period, though it is generally the Sphinx with a prow before it—first noted on types Nos. 66–7—the bunch of grapes being only quite exceptionally seen in its old position. Among the reverse types, too, the familiar amphora in a wreath continues to be used occasionally until the coinage ceases to appear.

Then, while every piece, with the exception of the agonistic issues bearing a seated figure of Homer on the reverse, has its denomination marked upon it by name, we find, alongside of the Roman *assaria*, an obol and multiples of the χαλκοῦς. No piece standing for the unit of the latter value has been found, and it seems possible that it may never have been struck. In this particular of marked values, so far as regards its comprehensiveness at any rate, the coinage is distinguished from all other contemporary bronze issues.[126] These obols, tetrachalka, &c., are surely survivals, at least in name, of denominations that had long been current at Chios. The use of a coined obol during the autonomous days of the mint may be doubted, the smallest silver piece so far brought to notice being the supposed diobol of type No. 77, but the word obol must have been in everybody's mouth. As for the

[126] The large Rhodian bronze pieces inscribed ΔΙΔΡΑΧΜΟΝ, and struck in early imperial times as well as under Nerva and Trajan (*B. M. C.*, Nos. 394–9 and 416–18), are hardly parallel cases, though they bear witness to the absence of silver money in a "free city". On the other hand Mionnet, *Suppl.*, iv, p. 408, No. 304, records ΑCCΑ ΗΜΥ on a bronze coin of Syros under Sept. Severus, and Dr. Imhoof-Blumer gives numerous instances of letters denoting values on bronze coins from various mints in imperial times, *Griech. Münz.*, pp. 156–63.

tetrachalka, &c., we may feel practically certain that they preserve the names by which some at least of the various sizes of bronze coins struck during the foregoing periods were known, though it would be rash to attempt to identify them.[127]

But these coins with Greek names have no metrological connexion with any of the Greek monetary systems. They are survivals in name alone, as has just been said. From the reverse types, which were common to both, and from the way in which the one denomination gave way to the other, it is evident that the *obol* was considered to be the equivalent of *two assaria.* The appearance, in Greek guise, of the purely Latin denomination *assarion* among the very earliest of these coins is a sign that we have to deal with the Roman system, and, although no silver was being struck, the customary equation was no doubt observed according to which sixteen *asses* were accepted for one drachm or denarius. The imperial bronze obol of Chios, therefore, as the eighth part of the drachm, was clearly a new coin in value as well as in form.

Then, from a comparison of weights (for which see table at the end of this section where the characteristic symbols and reverse types are also given) it seems certain that the χαλκοῦς, in imperial Chios, was looked upon as the twelfth part of the obol, instead

[127] Dr. Imhoof-Blumer drew attention in *Num. Chron.*, 1895, p. 283, viii. 1, to a small bronze coin of Clazomenae bearing a large X on the reverse. This, as the author remarks, no doubt stands for χαλκοῦς. The weight of the coin is 20 grains (1·30 grammes), which, curiously enough, is about half that of the average Chian dichalkon. As this coin of Clazomenae is comparatively early, however—between 300 and 200 B.C.—the apparent agreement in weight must be only a coincidence.

of the eighth part as might have been expected from the Greek nomenclature. This division, recalling as it does the twelve *unciae* of the *as*, also suggests Roman influence. In other words, the names *tetrachalkon*, *trichalkon*, and *dichalkon*, although foreign to the Roman monetary system, no more represent the same coins as their Greek prototypes than did their contemporary the bronze obol.

The argument from types gives the same result. If, in accordance with the usual Greek system, the obol had been reckoned as equal to eight χαλκοῖ, the tetrachalkon would be the half-obol. But the half-obol—which does not exist as a separate denomination[128]—was presumably represented by the assarion since the obol was equal to two assaria. The tetrachalkon must therefore have had a different value, and this is proved by the fact that it bore a special reverse type of its own. Similarly, the dichalkon and hemiassarion would not have been struck contemporaneously and with different types, as they were, unless they had represented different fractions of the obol or assarion.

Again, on the supposition, which I am following, that the obol contained twelve chalkoi, the trichalkon would have been the equivalent of the hemiassarion, and the two would presumably not have been issued together. Not only can this be shown to have been the case, the trichalkon—like the tetrachalkon, though a much rarer coin—having appeared only once, but when the hemiassarion was introduced it was made

[128] Mionnet, iii, p. 278, No. 123, describes a coin with the types of the obol and the inscription HMY OBO as existing in the Cousinéry collection. All trace of the coin seems to have been lost, however, and, as Dr. Imhoof-Blumer says, *Griech. Münz.*, p. 136, note 2, the inscription is improbable.

with the same reverse type as its predecessor. As in the case of the obol and piece of two-assaria, this repetition of type is a certain proof of identity of value, since the reverse type of a given fraction or denomination, once fixed, was never altered. Unless the development during the 250 years of their currency of the various objects that served as types be closely followed it is not always easy to realize this continuity. For instance, in the *Brit. Mus. Cat. Ionia, Chios*, Nos. 133 and 135, the reverse type of some of the late two-assaria pieces is described as a round-bellied amphora, which seems accurate enough at first sight. But its appearance is misleading, and the failure to recognize in it the kantharos for which it was really intended is due, I think, to the fact that this particular reverse type for obols and two-assaria was not employed during the whole of the second and the greater part of the third of the four sub-periods into which I am dividing the imperial coins. The same hiatus does not occur fortunately in the issues of hemiassaria, which also bore a kantharos on the reverse, chiefly because they did not possess an alternative reverse type. Among these nearly all the changes that took place in the drawing of the vessel can be traced from the unquestionable kantharos of the trichalkon—type No. 97 *β*—to that of a hemiassarion—type No. 124 *δ*—which belonged in all probability to the same issue as that which witnessed the revival of the kantharos on the two-assaria. The reverse types of these two coins are practically line for line the same, allowing for the difference in size [Pl. IX. 5 and 7], and there seems no reason to doubt that both were meant to represent the same object and that that object is a kantharos.

The scale of equivalents may accordingly be stated as follows:

1 denarius = 8 obols = 16 assaria = 96 chalkoi.[129]

This conclusion is confirmed by the coin-weights, as already observed, but it is not so easy to use coin-weights as types in illustration of the argument, on account of the reductions that took place in the former as time went on, and of the inconsistencies between different issues of the same period. Although, when several denominations of a particular issue can be identified, the relations between their respective weights seem to have been fairly well observed, especially in the higher values, it would be extremely hazardous to try to guess the denomination of a coin by means of its weight alone. The irregularity of Roman coin-weights, as compared with Greek, is generally recognized, and the methods of the imperial Chian mint in this respect are a further proof, if proof were needed, of the complete disappearance of the Greek metric system from the island.

Still, although it was imperfectly followed, there appears to have been a genuine standard of weight. This at first may have been founded on the Roman *as* of the Augustan age, which weighed 210·5 grains (13·64 grammes) maximum.

It has already been observed that among the first of these named coins to be struck were certain pieces of one-assarion. These can safely be attributed to the

[129] Dr. Imhoof-Blumer proposed these same comparative values in *Monnaies grecques*, p. 298; but Dr. Head in *Historia Numorum*[2], p. 601, describes the coins as though they belonged to the Greek system.

early portion of the Augustan age on account of their style, and seem, from all points of view, to be the very earliest surviving coins of this class. They will be found described below under type No. 95 [**Pl. VIII. 1**], and they exemplify the remark made in the introduction to the last period to the effect that some of the issues bearing named denominations were probably made before those of the old style had ceased. The treatment of both the obverse and reverse of this assarion, for instance, comes very near to that of types Nos. 82–7, and its lettering agrees with theirs absolutely. One of the latter group, too, bears the same magistrate's name (see type No. 86). The larger coins of type No. 96, on the other hand, are so different in appearance that they seem to belong to another school of art. Some of them resemble the later Augustan coins without denominations—types Nos. 88–94—witness the Sphinx's head of type No. 89, and the sporadic use of the *lunate sigma* throughout. On the whole, however, the coins of type No. 96 look later than anything described in the last period, though there can be no doubt, in my opinion, that among coins with named denominations they come next in order to the assarion just mentioned, with a certain interval between them. The evidence of the weights is entirely in favour of placing type No. 95 in a group apart. No other denominations at all resembling it have been preserved, and it is quite possible that none may have been struck. Only four specimens of this assarion are known to me, and their weights vary between 177·5 grains (11·50 grammes) and 110·2 grains (7·14 grammes), with an average for the four of 153·9 grains (9·97 grammes). This result is quite as much as one would expect from

a provincial mint, seeing that the Roman *as* of Augustus invariably weighed less than the standard half-ounce (13·64 grammes).[130] But when we turn to the heaviest surviving specimens of the other types we find a piece of three-assaria weighing 364·3 grains (23·61 grammes), and an obol weighing 254·2 grains (16·47 grammes). These coins belong to type No. 108, which is by no means the earliest of the succeeding groups. Their comparatively heavy weights may therefore be accidental, as in fact they seem to be, but even so they amount to very little more than two-thirds of a standard represented by an assarion of 177·5 grains (11·50 grammes). This reduction in weight is too great and too general for it to be due to the usual process of degradation; besides, the lower level once reached was fairly well maintained. There must have been a deliberate change of standard between the issue of type No. 95 and that of No. 96, and appearances point to its having been effected during the reign of Augustus. It seems improbable that it should have come as late as Nero's reign, and therefore no attempt need be made to associate it with the latter's monetary reform. The weight of the new assarion too, which averaged about 92·6 grains (6·00 grammes), is far too low to have any connexion with Nero's reformed copper *as*.[131]

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[130] Rev. E. A. Sydenham, *Coinage of Nero*, pp. 23–4, *Num. Chron.*, 1916.

[131] Rev. E. A. Sydenham, *op. cit.*, p. 24, remarks that the copper *as* of Nero's reign seldom exceeded 180·0 grains (11·66 grammes), and that thirty of them in fine condition were found by him to average 163·6 grains (10·60 grammes). The author also says, p. 21 of the same paper, that M. Soutzo's effort to show that "Nero

This stage may be said to have lasted till well on in the second century A.D., to judge by the style of the coins concerned, by which time the standard had become roughly that of an assarion weighing 77·16 grains (5·00 grammes). Then, at some uncertain date during the latter part of the century, this standard was still further and, to all appearances, again intentionally reduced by one-half. That brings us to the last stage in the evolution of the coin-weights, and a unique assarion in mint state weighing 36·4 grains (2·36 grammes) [Pl. IX. 14] can safely be assigned to the period between the age of the Antonines and the death of Gallienus.

As instances of the careless way in which the weights were often regulated, attention may be drawn to the following facts. We find pieces of one-and-a-half-assarion and one-assarion, belonging to my second sub-period and practically contemporaries, both weighing about 69·45 grains (4·50 grammes), which is light even for the average assarion of this time. There are two pieces of three-assaria among those of the same sub-period, struck from the same dies and in equally good condition, with yet a difference of 61·7 grains (4·00 grammes) between them. Certain other pieces of three-assaria in the same group, but slightly earlier, exhibit the extreme variations of 364·3 and 206·8 grains (23·61 and 13·40 grammes). These belong to the same type, but are struck from different dies. The late pieces of three-assaria vary between 162·0 and 83·2 grains

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harmonized the entire monetary system of the Empire scarcely seems to be borne out by a study of the coins". These named pieces of Chios also militate against such an assumption.

(10·50 and 5·39 grammes). Finally, the small denominations of all periods are most irregular in weight, and amongst their later issues hardly any distinction was made between the half-assarion and the dichalkon, or one-third-assarion.

During the long term of years over which these issues extended their style naturally suffered considerable change, and in the absence of any more definite evidence style remains, as always throughout the Chian series, one of the principal indications of date. Under this test the coins fall into three main groups corresponding roughly to the rise, acme, and decline of Roman art; and my four sub-periods α–δ will be found to follow the same lines, and to be distinguished also, in part, by the changes of standard noted above.

The first group, exhibiting the characteristics of the period between the reign of Augustus and the death of Nero, A.D. 68, contains most of the heaviest coins, and, with Greek traditions presumably still strong, shows a preference for the obol and multiples of the chalkous among its denominations. The trichalkon makes its only appearance here. These are the coins of my sub-period α [Pl. VIII. 1–6]. The next group, which may be said to extend from the death of Nero to about the middle of the second century A.D., and which is signalized at first, as would be expected, by some of the best work produced in these days, witnessed, in its latter portion, the substitution of the two-assaria piece for the obol. On the other hand, it furnishes, rather anomalously, the only issue of tetrachalka at the same time as some of the new two-assaria. This coincides with my sub-periods β and γ, during which the weights remain fairly constant [Pl. VIII. 7–13 and Pl. IX. 1–8].

The third group includes all the pieces of lightest weight, and its debased style is typical of the third-century coins that are generally associated with the name of Gallienus. There is no sign among its issues of any piece smaller than the assarion, which means that all denominations with Greek names had disappeared by this time. There seem to have been no more issues of Homereia either after the change of standard that forms one of the principal dividing lines between this group and the last named. Their place may be said to have been taken, however, by certain so-called alliance pieces bearing the types of Erythrae and Smyrna conjointly with those of Chios. These are the coins of my last sub-period δ [Pl. IX. 9-14].

The issues that I would attribute to sub-period α, or to the years between the reign of Augustus and A.D. 68, are to be found under types Nos. 95–107 β. But before proceeding to describe the coins in detail a few general remarks on their appearance may be offered.

The flans are of larger size than in the subsequent issues, some of the obols in particular being nearly as large as their corresponding three-assaria pieces, which is never the case with those to be described later. An unusual number of all denominations are struck over older coins, though I have been quite unable to identify any of the originals. All the coins are distinctly rare, and several of them are unique. After type No. 95—the assarion already alluded to— the style of the obverse undergoes a complete change. The severity which had characterized nearly all the work of the preceding centuries disappears, and we find a succession of florid Sphinxes, some of them extraordinarily ugly and of clumsy execution.

As regards a chronological arrangement within the limits stated it is not easy to come to a conclusion. In default of any more cogent evidence, I have allowed myself to be guided by the words and lettering of the inscriptions with the following results.

Just as the inscription XIΩN of type No. 76 β was used as an argument for assigning this drachm to the latest possible date because XIΩN is the form almost invariably used on the imperial issues, so now the word XIOΣ on certain of the latter may fairly be claimed as a sign of their relative earliness. These will accordingly be found at the head of the following list, as they presumably reflect the influence of autonomous days. The attribution is supported, too, by the fact that the pieces so inscribed include type No. 95, which, on other grounds, has already been selected as the earliest of all these imperial coins. Then there is a small group distinguished by the uncial form of Ω in XIΩN. As this letter seems to have had but a short life at Chios, in spite of the fact that Є is constantly employed, and as the group is connected in other ways with the preceding one, the coins in question may be assumed to have immediately succeeded those with XIOΣ. Last of all I am placing a few of the issues showing Ω in XIΩN, which, on account of their indifferent style, and other peculiarities noted below, can hardly have followed any of the better executed and more uniform groups of sub-period β.

Various misspellings occur on these imperial issues, and since they are more plentiful on the earlier coins than on the later ones it is convenient to summarize them here. ACAPIN or ACCAPIN for ACCAPION (in the phrase *ἀσσάριον ἥμισυ*) will be noticed in

sub-period α, and in the second issue attributed to sub-period β. HMYCY for HMICY is general, as elsewhere at this time, but TPEIA for TPIA is peculiar to sub-period α, and the contraction TPIACCAPIA to α, and to the first issue of β. ACAPIA frequently and ACCAPA very rarely are found in δ, and HMIACAPION occurs occasionally in β and γ, but the two intermediate sub-periods show most regard for literary forms on the whole. The indifference to these and the careless drawing of the types, both of which features are so marked in sub-period α, point to its being a time of transition. On the other hand, the only instances of HMICY being so spelt occur in sub-period α and the early portion of β, but this also might be counted a misspelling according to the new standard. The omission of the O in ACCAPIN betrays the colloquialism that was probably well established in the first century A. D.,[132] though it is never found on any issue later than the one mentioned in sub-period β, by which time a new tradition may be said to have been created.

Magistrates' names are by no means plentiful, and there are considerably more issues without names than with them, as is the case throughout the whole imperial series. Attention has been drawn above to the occasional appearance during the preceding centuries of issues without magistrates' names after the recording of such had become habitual.[133] It seems possible that

[132] Compare HMIOBEAIN on bronze coins of Aegium of the first century B.C., *Brit. Mus. Cat. Peloponnesus, Aegium* 1. For other instances see Franz, *Elem. epigr. graecae*, p. 248, Αὐρῆλις, Ἰοῦλις, *παδίριν*, *φιλημάτιν*, &c.; *J. H. S.*, 1895, p. 120, EΞEΔPIN; and *J. H. S.*, 1897, p. 83, ΓPAMMATIN.

[133] See p. 80, and types Nos. 47 *a*, 53 *a*, 70 *β*, &c. These

the coins without names and symbols are those struck at the expense of the state when no wealthy "magistrate" was forthcoming to perform the necessary λειτουργία. The fact, too, that the earliest issues, according to my arrangement, without magistrates' names are also the first on which ΧΙΩΝ takes the place of ΧΙΟΣ may be said to support this suggestion.

As weight is in some ways the most interesting feature of these coins, and as this is affected to a considerable extent by condition, I am adding wherever advisable, as indications of condition, the letters (g) = good, (m) = moderate, and (b) = bad to the details of description as already given.

SUB-PERIOD α. WITH ΧΙΟΣ.

95. *Obv.*—Sphinx seated l. on club with handle to r. of very similar style, especially as regards the head, to that of type No. 82, but with less conventionalized wing, raising farther forepaw over stamnos. In exergue ΑΣΣΑΡΙΟΝ. No border.

Rev.—Amphora with lip between ΦΑΥΣΤΟΣ r. and ΧΙ ΟΣ l. both downwards. In field l. cornucopiae. Border of dots.

Æ. ↑↑ 25·00 mm. 174·4 grains (11·30 grammes). (g) Berlin Cabinet. Published by Imhoof-Blumer, *Monn. grecques*, No. 137. [Pl. VIII. 1.]

(This specimen is countermarked on shoulder of amphora on *rev.* with a bunch of grapes.)

↑↓ 25·75 mm. 153·54 grains (9·95 grammes). (m) Berlin Cabinet.

↑↓ 23·50 mm. 110·2 grains (7·14 grammes). (m) Leake Coll., Fitzwilliam Mus., Cambridge.

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are all bronze with one exception, that of the diobols of type No. 77.

↑↓ 25·50 mm. 177·5 grains (11·50 grammes). (m) Munich Cabinet.

(On this specimen the *obv.* inscription is arranged [ΑΣΣ] l., ΑΡΙΟ r., ↷ and Ν in exergue.)

96 *a*. *Obv.*—Sphinx seated r. on plain exergual line, raising farther forepaw over prow; head-dress and wing somewhat resembling preceding, but of more careless style. In exergue ΤΡΙΑ ΑCCΑΡΙΑ. No border.

Rev.—Amphora with lip between ΑΝΤΙΟΧΟΣ ΑΠΟΛΛΩΝΙΔΟΥ r. and ΧΙ ΟΣ l. all downwards. In field l. bunch of grapes. Border of dots.

Æ. ↑? 32·00 mm. 337·0 grains (21·84 grammes). (?) Bologna Cabinet, published *Monn. grecques*, No. 140.

↑← 33·50 mm. 309·8 grains (20·08 grammes). (b) Paris Cabinet, No. 5163.

(This specimen is struck over another coin.)

96 *β*. *Obv.*—Sphinx seated r. on plain exergual line, raising farther forepaw over prow; head like preceding, but wings straight and both showing. Around [ΑΣΣΑ]ΡΙΝ ΗΜΙΣΥ ↷. No border.

Rev.—Two thyrsi crossed with bunch of grapes above, kantharos below, ΧΙ l. and ΟΣ r. Around Α[ΝΤΙΟΧΟΣ] ΑΠΟΛΛΩΝΙΔΟΥ ↶. No border visible.

Æ. ↑↓ 27·00 mm. 170·5 grains (11·05 grammes). (m) Berlin Cabinet.

↑↑ 27·50 mm. 167·7 grains (10·87 grammes). (b) Athens Cabinet.

97 *a*. *Obv.*—Sphinx seated r. on plain exergual line, raising farther forepaw over prow; both wings showing. Above ΟΒΟΛΟΣ. Border (?).

Rev.—Kantharos with ΣΤΕΦΑΝΗΦΟΡΟΣ r. and ΧΙ ΟΣ l. In field l. cornucopiae and plemochoe. The whole in wreath.

Æ. ↑? 31·00 mm. 222·2 grains (14·40 grammes). (?) Florence Cabinet, published *Monn. grecques*, No. 138.

↑← 31·00 mm. 186·7 grains (12·10 grammes). (m) Munich Cabinet.

97 *β*. *Obv.*—Sphinx seated r. of same design as type No. 96 *β*, but wearing *modius*, raising farther forepaw over indistinguishable object. Below or behind Sphinx ΤΡΙ, above ΧΑΛ, and in front ΚΟΝ. No border.

Rev.—Kantharos with ΣΤΕΦΑΝΗΦΟΡΟΣ r. and ΧΙ ΟΣ l. both downwards. In field l. bunch of grapes. No border visible.

Æ. ↑← 20·50 mm. 62·5 grains (4·05 grammes). (m) Athens Cabinet.

↑↓ 20·50 mm. 55·6 grains (3·60 grammes). (m) Berlin Cabinet, published *Monn. grecques*, No. 139.

↑↓ 18·25 mm. 55·6 grains (3·60 grammes). (m) Vienna Cabinet.

↑↑ 20·50 mm. 51·5 grains (3·34 grammes). (b) Brit. Mus. Cat. Ionia, Chios, No. 112.

98. *Obv.*—Sphinx seated r. on plain exergual line, of same design as type No. 96 *α*, raising farther forepaw. Border of dots.

Rev.—Homer seated l. on chair with straight back holding volumen in both hands. No border. Inscription mostly illegible, but - - ΟC visible in field l. upwards.

Æ. ↑↑ 19·50 mm. 57·7 grains (3·74 grammes) (b) Berlin Cabinet.

99. *Obv.*—Sphinx seated l. on prostrate amphora (?) with straight wing as on type No. 96 *β*, raising farther forepaw over kantharos. Border of dots.

Rev.—Homer seated l. on chair with carved back holding volumen in r. Above ΟΜ[ΗΡΟC] ΧΙΟC ↷.

Æ. ↑↑ 20·50 mm. 80·5 grains (5·22 grammes). (m) Brit. Mus. Cat. Ionia, Chios, No. 139.

[Pl. VIII. 2.]

SUB-PERIOD *a*. WITH XIΩN.

100. *Obv.*—Sphinx of very rude style seated r. on club with handle to r., wing curled as on type No. 96 *a*, and raising farther forepaw over prow. On l., from below club, traces of TRIA ACCAPIA ☾.

Rev.—Amphora like that on type No. 96 *a*, but without lip, with XIΩN l. downwards, and bunch of grapes r. The whole in thick laurel-wreath terminating above in two thyrsus-like knobs, and the ties turned up on either side of foot of amphora. A row of dots both within and without the wreath possibly to represent berries.

Æ. ↑↓ 33·75 mm. 247·3 grains (16·025 grammes). (g) My collection, probably ex Whittall Coll. (Restruck on another coin.)

101. *Obv.*—Similar to preceding, but Sphinx seated l. on plain exergual line. Inscription [TPIA ACCAPIA] invisible.

Rev.—Same as above except that inscription reads X N l. and I Ω r. of amphora. and that the bunch of grapes is absent. The amphora has a thicker neck than preceding.

Æ. ↑ ? 29·00 mm. 265·4 grains (17·20 grammes). (m) Collection B. Yakountchikoff.

102. *Obv.*—Sphinx of equally rude style, but more like type No. 96 *β* in design, seated l. on plain exergual line, two wings showing, and raising farther forepaw over prow. Above TPI ACC A PIA ☾. Border of dots.

Rev.—Same as preceding except that inscription reads XI l. and ΩN r. of amphora, and that a dotted border encircles the laurel-wreath.

Æ. ↑↑ 33·00 mm. 314·2 grains (19·36 grammes). (g) My collection, probably ex Whittall Coll. [Pl. VIII. 3.]

↑↑ 33·00 mm. 240·7 grains (15·60 grammes). (b) Rollin and Feuardent's stock, Paris, 1913.

(Both these specimens are struck over other coins.)

103 *a*. *Obv.*—Similar to preceding, but Sphinx seated r., and only one wing showing. Above, in small letters, OBOΛOC ↷. No border.

Rev.—Kantharos with XI l. and ΩN r. in ivy-wreath tied below and terminating above in two thyrsus-like knobs.

Æ. ↑← 31·50 mm. 199·4 grains (12·92 grammes). (g) Rev. E. Rogers's Collection.

↑← 28·50 mm. 179·0 grains (11·60 grammes). (g) My collection.

↑← 28·00 mm. 162·0 grains (10·50 grammes). (m) Brit. Mus. Cat. Ionia, Chios, No. 107.

↑← 28·00 mm. 161·2 grains (10·45 grammes). (g) Berlin Cabinet, pierced.

↑← 32·75 mm. 151·2 grains (9·80 grammes). (b) Vienna Cabinet, No. 18000.

103 *β*. *Obv.*—Similar to preceding, but Sphinx wears *modius*, and raises farther forepaw over aplustre. In exergue ACCA[PION HMYCY]. Border of dots.

Rev.—Two thyrsi crossed with bunch of grapes above, prow to l. below, XI l., and ΩN r. in laurel-wreath tied below and terminating above in two thyrsus-like knobs. The whole in dotted border.

Æ. ↑← 25·75 mm. 165·1 grains (10·70 grammes). (g) My collection, probably ex Whittall Coll.

↑← 26·00 mm. 114·4 grains (7·41 grammes). (b) Mr. F. W. V. Peterson's Collection.

104 *a*. *Obv.*—Sphinx in unusually upright position, two wings showing and hair very roughly indicated, seated r. on plain exergual line raising farther forepaw over prow. In exergue XIΩN. No border.

Rev.—Kantharos with OBO l. and ΛOC r. ∪ in ivy-wreath tied below.

Æ. ↑↑ 32·25 mm. 193·8 grains (12·56 grammes). (g) Paris Cabinet, No. 5172. [Pl. VIII. 4.]

↑↑ 30·50 mm. 165·9 grains (10·75 grammes). (b) Vienna Cabinet.

104 β. *Obv.*—Similar to preceding, but Sphinx raises farther forepaw over aplustre. In exergue PINHMYCY / ACA. No border.

Rev.—Two thyrsi crossed with bunch of grapes above, kantharos below, XI l., and ΩN r. The whole in border of fine dots.

Æ. ↑← 29·00 mm. 177·5 grains (11·50 grammes). (g) Berlin Cabinet, published *Griech. Münzen*, No. 400. [Pl. VIII. 5.]

↑← 26·50 mm. 128·4 grains (8·32 grammes). (b) Athens Cabinet.

Sub-period α. With XIΩN.

105. *Obv.*—Sphinx of as rude style as preceding, but less upright and with only one wing showing, raised as on type No. 95, seated l. on plain exergual line, and raising farther forepaw over prow. In exergue TPEIA; above, traces of [ACCAPIA] (probably ∩). Traces of dotted border.

Rev.—Full length statues of Apollo and Dionysus to front on plain exergual line, draped and laureate, heads facing inwards. Apollo l. holds patera in r. and rests l. hand on hip. Dionysus r. pours libation from plemochoe in r. and holds thyrsus in hollow of l. arm. In field l. X / Ω r. I / N. No border visible.

Æ. ↑↓ 31·50 mm. 241·4 grains (15·64 grammes). (m) Vienna Cabinet, No. 17978. (Apparently struck over another coin.)

106. *Obv.*—Practically the same as preceding, but Sphinx to r. In exergue TPEIA; other letters invisible. Border of dots.

Rev.—Same as preceding except that the figures face to front instead of inwards. Inscription as before. Border of dots.

Æ. ↑↓ 34·00 mm. 362·8 grains (23·51 grammes). (m) Hunterian Cabinet, No. 56.

107 *α*. *Obv.*—Sphinx of careless style and with conventional wing of last period (types Nos. 83–4) seated l. on plain exergual line, and raising farther forepaw. No symbol in front of Sphinx, but Π in exergue. Border of dots.

Rev.—Kantharos as on type No. 104 *α*, but somewhat shorter in stem. Around HMIACCAPION XIΛN Q in various forms, generally abbreviated. The whole in dotted border.

Æ. ↑↑ 18·00 mm. 61·7 grains (4·00 grammes). (g) Berlin Cabinet.

The inscription on this specimen reads HMIACC l., API above, and ONXIΛN r. of kantharos.

↑↑ 17·00 mm. 53·1 grains (3·44 grammes). (g) Vienna Cabinet, No. 18011.

[Pl. VIII. 6.]

↑↑ 17·75 mm. 39·4 grains (2·55 grammes). (g) My collection.

↑↑ 17·00 mm. 38·6 grains (2·50 grammes). (g) Berlin Cabinet, published *Monnaies grecques*, No. 145.

The reverse die of all these is the same and faulty, the inscription reading ЄIMIAC l., A above, and XIΛN r. of kantharos. (See *Griechische Münzen*, p. 135.)

↑↑ 17·50 mm. 38·6 grains (2·50 grammes). (m) Berlin Cabinet.

↑↓ 17·00 mm. 27·0 grains (1·75 grammes). (b) Berlin Cabinet.

Both of these are from a third reverse die reading XIΛN l. and HMI r. of kantharos.

107 *β*. *Obv.*—Same as preceding.

Rev.—Amphora, as on type No. 102, with XIΛN ☾ to l. and ΔIXAΛ ☽ to r. Border of dots.

Æ. ↑↓ 16·00 mm. 30·9 grains (2·00 grammes). (m) My collection, bought in Chios.

↑↑ 15·00 mm. 29·0 grains (1·88 grammes). (m) Paris Cabinet, No. 5173.

No. 95. *Assarion.* Enough has already been said about this type to show that it is practically a link between the early imperial coins without named denominations and the rest of those that bear them. Its style and the magistrate's name, ΦΑΥΣΤΟΣ without a patronymic, connect it with types Nos. 82–7, and its denomination with No. 96 and those that follow after it. The magistrate of type No. 86 was no doubt the same person as this.

The stamnos in front of the Sphinx is unique among the various objects found in this position on imperial coins. The prow is of the most frequent occurrence, but there seems to have been some attempt to confine certain objects to particular denominations, though the scheme was not carried out as consistently as in the case of the reverse types. The issues of one-and-a-half-assarion, for instance, show four different symbols of this nature, and the Homer coins three. The club on which the Sphinx of this type is seated is one of the adjuncts that I look upon as mint marks (see remarks under type No. 72), and will be met with again on various denominations belonging to this and the next sub-periods. The cornucopiae, however, seems to be a genuine magistrate's symbol, and has not been seen since some of the types that I have attributed to the early part of the last period, though it appears again in this one on the obol of type No. 97.

There were at least two issues of this assarion, as is shown by the varying form of the obverse inscription.

The countermark on one of the Berlin specimens suggests that the coin was reissued later on, as a similarly formed bunch of grapes is the symbol used on the three-assaria piece of type No. 96 *α*, the trichalkon, No. 97 *β*, and the three-assaria, No. 100. This bunch of grapes is distinctive in not exhibiting the attached piece of the vine-shoot as had been the custom hitherto. It will be remembered that a countermark very closely resembling this seems to have been used on type No. 89, one of the drachms bearing the name Antiochus. There is unfortunately a little doubt about the actual object represented on account of the condition of the coin, but if it could be vouched for the countermark would, I think, strongly support the attribution of the drachm in question to the time of Augustus rather than to that of Nero.[134]

No. 96. *Three-assaria* and *One-and-a-half-assarion.* With this type begins the series of clumsily executed pieces that present such a contrast both to the assarion just referred to and to the early types of the next subperiod. It has already been suggested that there was probably an interval between type No. 95 and the present one, and that the silver and bronze types without denominations, Nos. 88–94, were very possibly struck during that interval. Their degraded style is exactly suitable to it, and the drachms, Nos. 88–9, seem to coincide with its extreme limits.

The amphora on this three-assaria piece will be seen to be the same as that on types Nos. 88 and 90–2. The denomination is written altogether in the exergue as on the last type, a method that will be seen to have

[134] See p. 247.

had only a short vogue. I give the lettering as rendered by Dr. Imhoof-Blumer in *Monnaies grecques*, since that of the Paris specimen is illegible, and it is worth noting as providing an instance among these coins of the two forms of *sigma* being used on the same piece, as was remarked in the case of type No. 92.

The magistrate's name with a patronymic is also a link with the previously described types Nos. 85 and 92.

Another feature connecting this and some of the following types with those already attributed to the early years of the Augustan age is the die-position ↑←. This will be seen to occur fairly frequently during the present sub-period, but not at all later.

The reverse inscription of the one-and-a-half-assarion is written round the type from right to left so that most of the letters appear upside down when the coin is held upright. This style of lettering, after tentative beginnings which go back to the days of Julius Caesar, became the rule at Rome during the reigns of Vespasian, Titus, and Domitian, but then ceased. It is of course familiar to students, though I have never seen it quoted as a test of date. Since, however, the lettering of coins took an exactly similar course at many Asiatic mints, Bargylia, Cos, Rhodes, Miletus, and Smyrna, to mention a few prominent cases only where the coins can be dated because of the emperors' heads that they bear, it seems fair to treat it as a guide at Chios in the absence of other evidence there. The attribution, then, of the types assigned to the present sub-period finds confirmation in the fact that the lettering in question is occasionally found among

them, while its consistent appearance on all the denominations but one of type No. 110 in the next sub-period may be taken to show that those coins are probably very little later than the end of the first century [Pl. VIII. 11–13].

The latest instance of this lettering that I have been able to trace among the mints in the neighbourhood of Chios is on a coin of Samos belonging to the reign of Trajan (*Brit. Mus. Cat. Ionia, Samos*, No. 237).

No. 97. *Obol* and *Trichalkon*. All the specimens of these coins that I have been able to examine are unfortunately in indifferent condition and some of the details are unrecognizable. But the lettering can be read well enough to show that Ε and not Є was the form used, this being probably the latest appearance of Ε at Chios.

Apart from this being the only known instance of the trichalkon denomination the main interest of the type centres in the magistrate's name. Is ΣΤΕΦΑΝΗΦΟΡΟΣ to be understood as an official title, or as a personal name? In favour of the former hypothesis is the fact that the name, if it be one, is not accompanied by a patronymic which, on the analogy of other contemporary issues, we should have expected in this case. There is plenty of evidence, however, that the word was used as a personal name during the Roman period,[135] and I am accordingly including it in my list of magistrates.

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[135] See Fick and Bechtel, *op. cit.*, p. 254, and an imperial issue of Hierocaesarea in Lydia (Welzl von Wellenheim, No. 6264) which is inscribed ΕΠΑΡΧΟΥΣΤΕΦΑΝΗΦΟΡΟΥ; also Münsterberg, *op. cit.*, p. 109.

Mionnet's incomprehensible reading ΧΑΛΠΗ (*Méd. gr.*, vi,

Nos. 98–9. *No denomination.* From the style of the obverses of these two types, and the use of the word XIOC on the latter, it is evident that they must be attributed to the same sub-period as the foregoing. No. 98 looks the earlier of the two on the whole, but unfortunately its condition is so bad that only fragments of the lettering can be distinguished. The drawing of its reverse is distinctly better than that of No. 99, the relation between them seeming to me to be much the same as that between types Nos. 95 and 96.

With regard to the general aspect of these coins with a figure of Homer on the reverse and the probable circumstances of their issue it is unnecessary to say anything here, as I am concerned mainly with their chronological arrangement. Besides, Mrs. K. A. Esdaile's article in *J. H. S.*, 1912, entitled "Homeric Coin Types", gives an exhaustive account of all coins of this nature. It is right to point out, too, that in the course of her paper (pp. 307–10) Mrs. Esdaile was the first to draw attention to the proper order of succession of the Chian issues as known to her. I am in complete agreement with her arrangement, as will appear below, and have only succeeded in making one addition to it, which is the type No. 98 from Berlin. The weights of the Homer coins, which seem to have been regulated so as to fall between the trichalkon or hemiassarion and the tetrachalkon, suffer a gradual decline like those with named denominations. Type No. 98 is the only exception to this, and will be

p. 389, No. 69) is no doubt due to the curiously dispersed obverse inscription of the trichalkon denomination, and to the bad preservation of its extant specimens.

observed to be rather light for its position at the head of the list.

Nos. 100–2. *Three-assaria.* These three types are evidently near contemporaries and differ only in details. They are among the ugliest products of the Chian mint, not even excepting some of the issues of sub-period *δ*.

As instances of the clumsy drawing characteristic of this time attention may be called to the way in which the Sphinx's hind paw projects at an angle above the ground-line [Pl. VIII. 3], and to the awkward position of the prow, very similar to that first assumed by the amphora on the early staters. (Compare Pls. II and III.) The prow itself, too, is so rudely and conventionally rendered as to be hardly recognizable in some cases. The former peculiarity occurs in type No. 102 and in the two following sub-types, after which the technique improves in that respect; but a well-formed prow squarely placed on the ground-line is not to be found on any of the issues attributed to this sub-period.

Although these types present a few new features they yet preserve sufficient links with some of the coins already described to make their attribution to this particular part of the series a practical certainty. The bunch of grapes on the reverse of No. 100, for instance, which has already been referred to under type No. 95, is one such link; the club on the obverse is another, and some other similar though smaller points will be found indicated in the detailed descriptions above. The thick laurel-wreath on the reverses recalls the ivy-wreath on the small bronze pieces of type No. 94 (Period X), and is the first appearance on

coins with named denominations of what later on becomes one of their most familiar devices. All the really early issues, of no matter what denomination, have a dotted circle or no border at all on their reverses. The uncial form Ω, being so rare at Chios, as noted above, may also be regarded as a link with the issues marked ΧΙΟΣ (see type No. 96 on which this form is used in ΑΠΟΛΛΩΝΙΔΟΥ).

No. 103. *Obol* and *One-and-a-half-assarion.* The chief point calling for comment in this type is the remarkably consistent occurrence of the die-position ↑←, which constitutes another bond between the coins marked ΧΙΩΝ and those with ΧΙΟΣ (see types Nos. 96–7), especially as it is not used again at Chios except on type No. 104 *β*, also of this group.

The aplustre before the Sphinx on the one-and-a-half-assarion is an innovation, but, as has already been observed, this denomination is peculiar in exhibiting a variety of objects in this position. The value of this particular denomination is always inscribed on the obverse of coins belonging to the first sub-period, and on the reverse of all later ones, and, though both specimens of this rare sub-type are badly struck, there is no doubt that they conform to the rule. The thick laurel-wreath on the reverse, practically the same as that on types Nos. 100–2, is its first appearance on this denomination.

No. 104. *Obol* and *One-and-a-half-assarion.* These coins are quite different from the last in general appearance, though the presence of several of the details already alluded to makes it clear that they must be their near contemporaries.

Nos. 105–6. *Three-assaria.* On these unique coins, both of which are unfortunately in too bad preservation for reproduction, is seen for the first time the familiar reverse portraying statues of the tutelary gods Apollo and Dionysus. On No. 105 the figures are represented with their heads turned inwards, but this scheme was renounced in favour of full-facing heads on all subsequent issues but one until sub-period δ, when it was revived. The obverses, on the other hand, are in keeping with all those hitherto described as regards their rough drawing and the highly conventional rendering of the prow. From now onwards the inscription ΧΙΠΝ will be observed to remain unchanged.

The misspelling ΤΡΕΙΑ is confined to these two issues.

No. 107. *Hemiassarion* and *Dichalkon.* It is difficult to decide where exactly to place these two sub-types, but on the whole they seem best suited to this sub-period with its varying style. The wing of the Sphinx is different from that on any of the preceding specimens, but the way in which its near foreleg is drawn extended, instead of upright, is the same as on the last two types, and on the next one which begins sub-period β. The kantharos is a little shorter in the stem than any of those mentioned above, but is undoubtedly an earlier stage in the development of the type than that of No. 108 ε. The amphora of the dichalkon is identical with that of the three-assaria types Nos. 101–2, a form very soon to be superseded by that with the open mouth which characterizes all subsequent issues. Lastly, the Π in the exergue may plausibly be referred to the same source as the ΠΟ

and Γ of types Nos. 60 and 62 *β*.[136] As neither this Π nor any other similar letter or group of letters is to be found again on this portion of the Chian series, it is fair to assume that these two exceptions belong to its early period rather than to a later one.

The die-position ↑↑, which occurs most frequently here, is also more in keeping with coins of sub-period *α* than with those of *β*, among which it is quite exceptional.

A peculiarity shared by both denominations of this type is that the value is expressed, with one exception, in an abbreviated form, HMI or HMIACCA and ΔIXAΛ. These are the only instances of such abbreviations known to me. Neither denomination has a symbol before the Sphinx. As the former is being taken to be the earliest example of the hemiassarion this is the proper place to draw attention to the kantharos used as its reverse type which repeats that of the trichalkon of type No. 97, the equivalent in value of this piece.

Sub-period *β*.

This sub-period furnishes the best work of the imperial coinage, and the development of types Nos. 108–11, which compose it, can be traced with a very fair amount of certainty.

The issues are remarkable in being far more complete as regards their constituent denominations than any of the earlier ones. The first and second types represent rather rare coins, and neither of them can

[136] See p. 170, where it is suggested that the letter or letters in question may represent an *officina* of the mint.

have been struck at all plentifully, but with the third begins the series of comparatively common coins of Chios that must have circulated in large numbers.

Restriking is almost unknown, and the whole appearance of the coinage points to the period of its issue having been one of relative prosperity. The flans are of more regular shape, and the lettering is more carefully executed than on the earlier issues. The decrease in the size of the flans as compared with those of the last sub-period is especially noticeable in the case of the obols and the pieces of one-and-a-half-assarion.

The amphora is not used at all as a reverse device for the three-assaria denomination, and, possibly in sympathy with it, the obols here show an alternative reverse to the kantharos that has served them alone so far. This is a single full-length male figure, without any distinguishing adjunct on what I am taking to be the earliest issues. The figure can hardly be that of a god, and certainly not one of the gods worshipped at Chios,[137] but the helmet at its feet on most of the later issues suggests that the statue reproduced may have been that of a local hero. If so it must surely be intended to represent Oenopion, whose association with these Dionysiac types would be most appropriate, especially when it is remembered that his fame is known to have been preserved in the island till well on in the second century A.D. at least.[138]

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[137] These were the Ephesian Artemis, the Tyrian Heracles, Athena Poliouchos, Apollo, and Dionysus, the last two under various names. Poseidon and Zeus also had shrines. Fustel de Coulanges, *op. cit.*, pp. 322-3.

[138] See p. 10.

It has already been observed that some of the heaviest coins of the whole imperial series occur in this sub-period. They will be found among the three-assaria pieces and the obols of type No. 108, though type No. 106 runs the former very close. Some abnormally heavy dichalka also occur in type No. 110.

There are no magistrates' names to record.

108 *a*. *Obv.*—Sphinx as on types Nos. 105–6, but of more pleasing style, seated l. on plain exergual line, raising farther forepaw over prow. In exergue ΤΡΙΑC, to r. C, and above APIA ↷. Border of dots.

Rev.—Same as on type No. 106. Border of dots.

Æ. ↑↓ 33·00 mm. 364·4 grains (23·61 grammes). (g) Berlin Cabinet.

↑↓ 31·00 mm. 313·3 grains (20·30 grammes). (g) Aberdeen University.

↑↓ 31·50 mm. 305·6 grains (19·80 grammes). (b) Coll. E. T. Newell.

↑↓ 32·50 mm. 206·8 grains (13·40 grammes). (g) Berlin Cabinet.

108 *β*. *Obv.*—Same as preceding but ΟΒΟΛΟC above, or ΟΒΟ above and ΛΟC in exergue, in small letters. Border of fine dots.

Rev.—Full-length nude statue of a hero, laureate, standing facing on plain exergual line, and leaning on staff with l. arm around which chlamys is wrapped. In field l. X ∩ and r. I N. Border of fine dots.

Æ. ↑↓ 28·00 mm. 254·2 grains (16·47 grammes). (g) Vienna Cabinet, No. 17998.

↑↓ 29·00 mm. 211·4 grains (13·70 grammes). (b) Athens Cabinet.

↑↓ 27·25 mm. 176·9 grains (11·46 grammes). (m) My collection.

↑↓ 27·00 mm. 142·6 grains (9·24 grammes). (m) Munich Cabinet.

↑↓ 26·00 mm. 129·5 grains (8·39 grammes). (b) Leake Coll., Fitzwilliam Museum, Cambridge.

108 γ. *Obv.*—Same as preceding, but Sphinx rests farther forepaw on handle of club placed upright on ground-line. Above traces of XIΩN. No border.

Rev.—Two thyrsi crossed with bunch of grapes above. Around ACCA PION H MICY Ω. No border visible.

Æ. ↑↑ 24·25 mm. 158·5 grains (10·27 grammes). (g) Berlin Cabinet, pierced.

↑↑ 22·50 mm. 88·4 grains (5·73 grammes). (m) Paris Cabinet, No. 5124.

108 δ. *Obv.*—Same design, but Sphinx seated on club with handle to l. raises farther forepaw over bunch of grapes. Above XIΩN. Border of fine dots.

Rev.—Amphora, of similar design to that of type No. 101 but better drawn, with ACCA r. and PION l. Ω. Border of fine dots.

Æ. ↑↓ 23·50 mm. 102·2 grains (6·62 grammes). (g) Berlin Cabinet. [Pl. VIII. 7.]

108 ε. *Obv.*—Same design, but Sphinx seated on plain exergual line raises forepaw over prow. Dotted border.

Rev.—Kantharos, similar to that on type No. 107 α but better drawn. Around HMIA CCAPI ON Ω. Dotted border.

Æ. ↑? 15·50 mm. 45·7 grains (2·96 grammes). (g) Coll. Dr. Imhoof-Blumer. [Pl. VIII. 8.]

Six other specimens known with sizes varying from 17·00–15·25 mm. and weights from 52·9–24·3 grains (3·43–1·58 grammes), all showing the die-position ↑↓.

109 α. *Obv.*—Sphinx of still better style, with long straight wing, seated bolt upright to l. on plain exergual line, resting nearer forepaw on prow, and raising farther one above it. In exergue TPIA, to r. ACCAPIA Ϙ. Border of dots.

Rev.—Same as on type No. 108 *a* except that a flaming altar stands between the gods.

Æ. ↑↓ 33·00 mm. 240·8 grains (16·12 grammes).
(b) Vienna Cabinet, No. 17976.

109 *β*. *Obv.*—Practically the same as preceding except as regards inscription, which reads **X** l. and **I** r. above, and **ΩN** in exergue. Border of dots.

Rev.—Two thyrsi crossed with **ACCA P I NHM YCY Ω** around. The whole in ivy-wreath formed of single leaves set in opposite directions from the top, and terminating above and below in two large dots, from between the upper pair of which hangs a bunch of grapes.

Æ. ↑↓ 24·00 mm. 128·2 grains (8·31 grammes).
(m) Berlin Cabinet.

↑↓ 24·25 mm. 123·2 grains (7·98 grammes).
(m) Berlin Cabinet.

↑↓ 23·00 mm. 119·4 grains (7·74 grammes).
(g) Vienna Cabinet, No. 17988, pierced.
[Pl. VIII. 9.]

↑↓ 24·00 mm. 68·7 grains (4·45 grammes).
(b) Paris Cabinet, No. 5126.

109 *γ*. *Obv.*—Same as No. 109 *a* except that bunch of grapes takes the place of prow in front of Sphinx, and that inscription reads **XI ΩN** above. Border of dots.

Rev.—Amphora with curved handles and mouth represented as if seen from above. To r. of it **ΛCCA** and to l. **PION**, both downwards. Border of dots.

Æ. ↑↓ 21·50 mm. 102·5 grains (6·64 grammes).
(g) Hunterian Coll., No. 63.
(This specimen is struck over another coin.)

↑↓ 21·00 mm. 92·6 grains (6·00 grammes).
(m) Berlin Cabinet.

↑↓ 20·25 mm. 70·5 grains (4·57 grammes).
(b) Paris Cabinet, No. 5121.

109 δ. *Obv.*—Same as preceding except that a prow takes the place of the bunch of grapes.

Rev.—Kantharos, as on type No. 108 ε. on plain exergual line. Around HM IACC APION ↻. Border of dots.

Æ. ↑↓ 16·50 mm. 37·4 grains (2·42 grammes). (b) My collection, bought in Chios.

109 ε. *Obv.*—Same as preceding except that Sphinx wears *modius*.

Rev.—Amphora, as on No. 108 δ, with Δ / X / Λ / O to l. and I / A / K / N to r. Border of dots.

Æ. ↑↓ 18·00 mm. 39·4 grains (2·55 grammes). (g) Berlin Cabinet, published *Monn. grecques*, No. 144. [Pl. VIII. 10.]

↑↓ 16·00 mm. 31·7 grains (2·05 grammes). (m) Munich Cabinet.

110 α. *Obv.*—Sphinx of good style seated r. on plain exergual line, wing more conventionally rendered than on preceding issues, raising nearer forepaw over prow. In exergue TPIA, above AC CA PIA ↶. Border of dots.

Rev.—Same as type No. 109 α. Some issues have a star in exergue.

Æ. ↑↓ 33·25 mm. 300·7 grains (19·49 grammes). (g) Paris Cabinet, No. 5155. [Pl. VIII. 11.]

Twenty other specimens known with sizes varying from 34·00 to 30·00mm., and weights from 292·3 to 180·6 grains (18·94–11·70 grammes), all showing the die-position ↑↓ except two ↑↑ (four pierced). Brit. Mus. Cat. Ionia. Chios, Nos. 122–5, Paris Cabinet, Nos. 5156 and 5158, &c. (On one of these, No. 57 of the Hunterian Coll., the obverse inscription is arranged AC CAP IA ↶ above the Sphinx, and the figure of Dionysus on the reverse does not hold a thyrsus.)

110 β. *Obv.*—Same as preceding, but inscription reads O in exergue, and BO ΛO C ∩ above Sphinx.

Rev.—Same as on type No. 108 β except that a helmet is placed to l. near the figure's feet. Some issues have a star in a similar position to r.

Æ. ↑↓ 29·75–24·50 mm. 200·0–110·9 grains (12·96–7·19 grammes). Paris Cabinet, No. 5170, Brit. Mus. Cat. Ionia, Chios, Nos. 108–9, Hunterian Coll., No. 52, &c. Twelve specimens in all (one pierced).

110 γ. *Obv.*—Same as preceding except that inscription reads XI ΩN ∩ above Sphinx, and that an upright amphora takes the place of the prow before it. In exergue club, handle to r.

Rev.—Similar to type No. 109 β except that inscription reads A CCAP ION HMYC Y Ↄ, and that each ivy-leaf of wreath is separated from the next by two small dots, between the topmost pair of which hangs the bunch of grapes. Two stars in the field, one r. and one l.

Æ. ↑↓ 24·75 mm. 127·2 grains (8·24 grammes). (g) Berlin Cabinet.

↑↓ 23·00 mm. 100·6 grains (6·52 grammes). (m) Munich Cabinet.

110 δ. *Obv.*—Same as preceding except that inscription reads XI Ω N ∩ above Sphinx, that a bunch of grapes takes the place of the amphora, and that Sphinx is generally seated on a club, handle r. One issue has a plain exergual line.

Rev.—Same as type No. 109 γ ACCA PION, except that some issues have a star in field r. and some two stars, one r. and one l.

Æ. ↑↓ and ↑↑ (two specimens) 21·50–19·00 mm. 111·6–68·7 grains (7·23–4·45 grammes). Brit. Mus. Cat. Ionia, Chios, No. 127, Hunterian Coll., No. 60, Paris Cabinet, No. 5119, &c. Eight specimens in all, weight of one not known.

110 ε. *Obv.*—Same as preceding except that a prow takes the place of the bunch of grapes, that the exergual line is always plain, and that all issues have a star in the exergue.

Rev.—Kantharos, as on type No. 108 ε. Around HMIACCAPION or HMIACAPION variously arranged, generally ↻. Border of dots.

Æ. ↑↓ 17·00–15·00 mm. 52·2–35·5 grains (3·38–2·30 grammes). Paris Cabinet, No. 5130, Sir H. Weber's Coll., &c. Eight specimens in all.

110 ζ. *Obv.*—Same as preceding, but star in exergue not constant.

Rev.—Amphora, as on No. 110 δ, with stars to r. and l. and ΔIXAAr., KON l., both downwards. Border of dots.

Æ. ↑↓ 17·00 mm. 51·5 grains (3·34 grammes). (g) Brit. Mus. Cat. Ionia, Chios, No. 113.

Five more specimens known with sizes varying from 16·00 to 15·00 mm., and weights from 49·3 to 33·8 grains (3·20–2·19 grammes), all showing the die-position ↑↓. Hunterian Coll., No. 53, Berlin Cabinet (*Monnaies grecques*, No. 143), &c.

110 η. *Obv.*—Same as preceding.

Rev.—Homer seated r. on chair with straight back unrolling volumen with both hands. Around OMHPOC ↶, variously arranged. Border of dots.

Æ. ↑↓ 18·00 mm. 51·5 grains (3·34 grammes). (g) Hunterian Coll., No. 68. [Pl. VIII. 12.]

Four more specimens known with sizes varying from 18·75 to 17·00 mm., and weights from 68·1 to 52·0 grains (4·41–3·37 grammes), all showing the die-position ↑↓. Paris Cabinet, No. 5115, &c.

111. *Obv.*—Sphinx of rather coarser style than that of No. 110, head larger, wing more upright, seated l. on plain exergual line and raising farther forepaw over prow. In exergue TPIA, above AC CA PIA ↶. Border of dots.

Rev.—Same die as Paris Cabinet, No. 5158 of type No. 110 *a*.

Æ. ↑↓ 32·00 mm. 224·4 grains (14·54 grammes). (g) Paris Cabinet, No. 5157. [Pl. VIII. 13.]

No. 108. *Three-assaria, Obol, One-and-a-half-assarion, Assarion*, and *Half-assarion*. This type is connected with the three-assaria pieces, Nos. 105–6, by the shape and position of the Sphinx's wing and by its straddled foreleg, the latter feature having already been noted on the small denomination of type No. 107.

Otherwise the appearance of these coins is a great improvement on all those so far described, especially in the case of the obol and the denominations below it. The three-assaria pieces that have survived seem to belong to a slightly earlier issue, though clearly of the same type as the smaller ones. A minor point in illustration of this is the drawing of the Sphinx's tail, which on the three-assaria terminates stiffly in a knob as on all the coins of sub-period *α*, but on the smaller pieces is elegantly curved with a tuft at the end [Pl. VIII. 2, 11]. The coins are in higher relief than any other imperial issue. The prow is less extravagantly formed and better placed than on the earlier issues, though it has not yet reached its full development. The amphora on the reverse of the assarion is quite well drawn, and an agreeable contrast to its immediate predecessors.

Although there is not the same justification for regarding the club on the one-and-a-half-assarion of this type in the light of a separate symbol, as on type No. 110 *γ*, its presence on the assarion, at least, in addition to the prow, repeats the use made of it on types Nos. 95 and 100.

The die-position ↑↑, to which reference was made under type No. 107, is confined here to the two specimens of the one-and-a-half-assarion denomination.

No. 109. *Three-assaria*, *One-and-a-half-assarion*, *Assarion*, *Hemiassarion*, and *Dichalkon*. This type is rarer than the last, and its proper place in the series is not quite apparent at first sight. It possesses no direct connecting link with No. 108, but some of its features strongly favour the position assigned to it between that type and No. 110. Its style is, if anything, superior to that of No. 108, as exemplified by the drawing of the prow, which is now at its best, and by the conscientious way in which the Sphinx's farther hind paw is shown in perspective behind the nearer. These points are both to be observed on type No. 110, but, as the latter is so closely related through No. 111 with the manifestly later types of sub-period γ, it cannot have preceded the present type.

The condition of the unique three-assaria piece at Vienna is too bad to allow of illustration, but enough can be seen of the reverse to make it clear that the gods stand full-face and that there is an altar between them. The altar is a new feature in the design, since this reverse was first noted under types Nos. 105–6, but it never fails to appear on any subsequent issue until the time of sub-period δ, when, as already observed, the gods' heads are once more represented facing inwards on certain issues. Three-assaria pieces, in short, without the altar, and, except for one issue in sub-period γ, with the gods' heads in profile, are either early or late.

The one-and-a-half-assarion with an ivy-wreath on the reverse approximates more to the same denomina-

tion of type No. 110, and the issues of sub-period γ, than to that of type No. 108, which is without a wreath like Nos. 96 β and 104 β.

The amphora, too, on the reverse of the assarion is of a later type than any so far described, being drawn so as to show the opening of the mouth as if seen from above. This mannerism will be seen to characterize all subsequent issues on which an amphora appears. The same object on the dichalkon, however, seems to follow the earlier and more conventional pattern of types Nos. 100–2, to which No. 108 δ belongs.

The die-position ↑↑ does not occur on any denomination of this type.

No. 110. *Three-assaria, Obol, One-and-a-half-assarion, Assarion, Hemiassarion, Dichalkon,* and *no denomination.* The group of coins now to be described is of quite as good style as the last, though very different in design, and provides the most complete range of denominations extant, including at least two issues of Homereia. It is interesting to compare the drawing of the reverse on the last-named variety with that of types Nos. 98–9. Another instance of the care with which the dies for the present type seem to have been cut is the separate lock of hair that hangs over the Sphinx's breast from the farther side of its neck. This detail first appeared on the three-assaria of type No. 108, but here every denomination shows it without exception.

The rareness of the one-and-a-half-assarion is particularly noticeable in a group which is otherwise so well represented in our collections. The two specimens known seem to belong to the latest issues of the type, of which there must have been a considerable number.

The differences between one issue and another are too slight to be noted here apart from the club and star in the exergue of some of them, but it may be remarked that on the earliest pieces the Sphinx's wing is nearly parallel with the ground-line, and gradually seems to have become more upright. The club and star may in this case, I think, be looked upon as separate symbols, or rather mint marks, like the Π of type No. 107. The club does not occur again, but though the star is to be seen on the reverses of one denomination or another of practically all the succeeding types it is never placed in the exergue, and is probably only to be regarded henceforth in the nature of an ornament.

It will be noticed that the die-position ↑↑, which is rare in this sub-period, is found exceptionally on the three-assaria and the assarion.

No. 111, *Three-assaria*, is an interesting link between the last type and the coins that I am attributing to the next sub-period.

While of coarser execution, as exemplified by the large head and paws of the Sphinx, the obverse is designed on the same general lines as that of No. 110—witness the separate lock of hair—and shows the characteristic inverted lettering. On the other hand, the Sphinx raises its farther forepaw instead of the nearer, in which particular type No. 110 departed from the precedent established by all its predecessors. The wing of the Sphinx is still more upright than on the later issues of No. 110, and is the undoubted forerunner of the more clumsily drawn wing of types Nos. 112–13. The reverse of the coin, as already observed, is from the same die as the Paris specimen

No. 5158, which represents one of the late issues of type No. 110 *α*.

Sub-period *γ*.

This sub-period consists principally of the coins issued by the magistrate Q. Valerius Primus during his two terms of office. There are two issues without a magistrate's name which, from the style of their obverses, must have been near contemporaries of the others included in this group. In speaking of issues without magistrates' names it must be borne in mind that, unlike the coins of sub-period *α* (see types Nos. 96 *β* and 97 *β*), it seems to have been found inconvenient at this time to inscribe the magistrate's name on any denomination smaller than the two-assaria. Types Nos. 114 *β*, 115–16, and 121 *β* of the following list are intended, therefore, to be taken as belonging to the same group, if not to the same issue, as the larger coins preceding them. I am placing one of these nameless issues at the beginning of the sub-period, since it is impossible to say whether it preceded or followed the coins struck during Primus's first magistracy. It certainly did not follow those of the second term, and the arrangement adopted secures the best continuity for the different types. The other nameless issue can be shown to be a comparatively late one, and it will accordingly be found at the end of the sub-period.

Although the issues of this sub-period are fairly plentiful they cannot from the nature of things fill the space of thirty odd years that is assigned to them. As has already been stated, however, the moment when the reduction of standard took place that separates

this sub-period from the next is quite uncertain. No historical event can be indicated as likely to have caused the reduction, though it seems possible that the age following the reign and liberality of Hadrian may have been a comparatively poor one in the remote provinces, and so necessitated economy in the bronze needed for coinage. In view of this uncertainty I cannot do otherwise than fix a date more or less at random, and the one chosen seems at least to present no serious objection.

It is once more fairly easy to follow the order of the different issues, the fixed points afforded by the two distinct periods of magistracy, and certain interchanges of dies, being of considerable help. The total number of coins represented in this sub-period is about one-third greater than in the last, but it will be seen that they are divisible into three times as many types. Though this may mean that more issues were made, it seems possible that coins with more or less varying obverses now formed part of the same issue, unlike the uniform series Nos. 108–10.

The method, generally followed in imperial times, of writing the magistrate's name in the genitive case with a preposition, will be found on all the Chian issues with names from this time onwards. The particular form of phrase adopted is ΕΠΙ ΑΡΧ, or, on most of the later issues, ΕΠ ΑΡ followed by the name in full.

The coins are of about the same size as those of sub-period β, except the dichalka, which are noticeably smaller, and the earlier ones at least show considerable care in workmanship, though the style is inferior. The chief features of interest are the sub-

stitution for the obol of the piece of two-assaria, and the momentary appearance of a tetrachalkon. The two smallest denominations are rare, but the Homereia are more plentiful than at any other period.

The amphora reverse type for the three-assaria is resumed on the earliest issues of this group, and the kantharos for the two-assaria (see obols of sub-period *α*) on the latest.

112. *Obv.*—Sphinx as on type No. 111, but with more conventionally shaped wing and no separate lock of hair on neck, seated r. on plain exergual line and raising farther forepaw over prow. In exergue ΤΡΙΑ ; above, traces of ΑCCΑΡΙΑ ⌒. [Border of dots.]

Rev.—Amphora, as on type No. 109 *γ*, in wreath with ⋀ l. and ⋁ r. A large eight-rayed star also in field r. and l. [Border of dots.]

Æ. ↑↓ 29·00 mm. 237·7 grains (15·40 grammes). (b) Munich Cabinet.

113 *α*. *Obv.*—Same as preceding, ΑC CΑ ΡΙΑ ⌒ above.

Rev.—Same as preceding, but in place of wreath ЄΠΙΑΡΧΚΟΟ ΥΑΠΡЄΙΜΟΥ Ο.

Æ. ↑↓ 31·50–30·50 mm. 269·0–186·9 grains (17·43–12·11 grammes). Brit. Mus. Cat. Ionia, Chios, Nos. 115–16, Paris Cabinet, Nos. 5161–2, and Berlin Cabinet (one specimen).

113 *β*. *Obv.*—Same as preceding.

Rev.—Same as preceding, but in place of the ties at either side of amphora's foot (as noted on type No. 100) a group consisting of two ears of corn with a poppy-head between them. Inscription has stops ЄΠΙΑΡΧ·ΚΟ·Ο ΥΑ·ΠΡЄΙΜΟΥ Ο, and the stars are smaller.

Æ. ↑↓ 33·00–31·50 mm. 278·8–214·7 grains (18·07–13·91 grammes). Berlin Cabinet and my collection (one specimen each), Paris Cabinet, No. 5160, pierced.

113 γ. *Obv.*—Same as preceding.

Rev.—Apollo and Dionysus facing with altar as on type No. 110 α, but ЄΠΙΑΡΧΚΟ ΟΥΑ ΠΡЄΙΜΟΥ Ω around, and ΧΙΩΝ in exergue. The whole in border of dots.

Æ. ↑↓ 33·00 mm. 263·4 grains (17·07 grammes). (g) Vienna Cabinet.

↑↓ 32·50 mm. 240·7 grains (15·60 grammes). (g) Paris Cabinet, No. 5150, pierced. [Pl. IX. 1.]

114 α. *Obv.*—Sphinx seated r. similar to preceding, but with short hair falling on neck instead of the usual chignon, wing a trifle more curled, and nearer forepaw raised over prow instead of farther. Above ΑC C ΑΡΙΑ ⌢. In exergue ΔΥΟ. Border of dots.

Rev.—Full-length nude figure of a hero facing, as on type No. 108 β, but ЄΠΙΑΡΧΚΟΟΥ ΑΠΡЄΙ-ΜΟΥ Ω around, and no star to r.

Æ. ↑↓ 27·00 mm. 159·0 grains (10·30 grammes). (m) Paris Cabinet, No. 5145.

↑↓ 26·50 mm. 125·6 grains (8·14 grammes). (g) Munich Cabinet. [Pl. IX. 2.]

114 β. *Obv.*—Same as preceding, but ΧΙ Ω Ν ⌢ above, and Sphinx raises nearer forepaw over amphora.

Rev.—Two thyrsi crossed in ivy-wreath as on No. 109 β. Within wreath ΑCCΑΡ ΙΟΝΗΜ ΥCΥ Ω.

Æ. ↑↓ and ↑↑ (one specimen) 157·3–101·1 grains (10·19–6·55 grammes). Vienna Cabinet, Paris Cabinet, No. 5122, Brit. Mus. Cat. Ionia, Chios, No. 126, Hunterian Coll., No. 59, &c. Twelve specimens in all (one pierced). (One specimen in the Chios Library Coll. has two stars in field.)

115 α. *Obv.*—Sphinx seated r. as on type No. 113, but raising nearer forepaw over bunch of grapes. Above Χ Ι ΩΝ ⌢. Border of dots.

Rev.—Amphora as on type No. 109 γ with ACCA PION ⌒ above, an eight-rayed star in field r. and l., and on either side of foot the ties properly associated with the wreath of type No. 112, &c. Border of dots.

Æ. ↑↑ 20·50 mm. 76·6 grains (4·96 grammes). (g) Hunterian Coll., No. 62. [Pl. IX. 3.]

115 β. *Obv.*—Same as preceding.

Rev.—Same as preceding without ties and with inscription arranged ACCAP IO N Ω around.

Æ. ↑↓ 20·50–20·00 mm. 85·2–73·0 grains (5·50–4·73 grammes). Paris Cabinet, No. 5118, Athens Cabinet, and Aberdeen University.

116. *Obv.*—Similar to type No. 113 with XI ∩ N ⌒ above.

Rev.—Same as preceding, but no stars in field, and ΔIXA l. upwards, ΛKON r. downwards.

Æ. ↑↓ 14·75 mm. 36·1 grains (2·34 grammes). (g) My collection, probably ex Whittall Collection.

↑↑ 14·50–14·00 mm. 31·9–23·3 grains (2·07–1·51 grammes). Brit. Mus. Cat. Ionia, Chios, No. 114, and Berlin Cabinet (two specimens).

117 α. *Obv.*—Badly proportioned Sphinx (long legs and neck) seated l. on plain exergual line, raising farther forepaw over prow. Above ACC AP IA ⌒. In exergue TPIA. Border of dots.

Rev.—Apollo and Dionysus facing with altar as on type No. 113 γ, but in smaller dotted border. Around ЄΠIAPXKO OYAΠPЄIMOY Ω. In exergue XI∩N.

Æ. ↑↑ 32·00 mm. 269·0 grains (17·43 grammes). (m) Brit. Mus. Cat. Ionia, Chios, No. 118, pierced.

↑↑ 31·75 mm. 251·3 grains (16·28 grammes). (m) Paris Cabinet, No. 5152, pierced.

117 β. *Obv.*—Similar to preceding, but AC CA PIA ⌒ above and ΔYO in exergue.

Rev.—Same as type No. 114 α, but inscription reads ЄΠIAPXKOO YAΠPЄIMOY Ω.

Æ. ↑↓ and ↑↑ (two specimens) 27·00–25·50 mm. 160·5–115·3 grains (10·40–7·47 grammes). Vienna Cabinet, Paris Cabinet, No. 5146, Hunterian Coll., No. 55, Berlin Cabinet (two specimens), and my collection. (One of the Berlin specimens has a star on r. of figure's feet)

118. *Obv.*—Same as type No. 113 γ. AC CA PIA ⌒ above and TPIA in exergue.

Rev.—Apollo and Dionysus with altar as before, but heads facing inwards. Around ЄΠI AP XΠP ЄIMOYΔIC Ω. In exergue XIΛN. Border of dots.

Æ. ↑↓ 30·50 mm. 277·0 grains (17·95 grammes). (g) Brit. Mus. Cat. Ionia, Chios, No. 119.

↑↑ 31·75 mm. 251·7 grains (16·31 grammes). (m) Paris Cabinet, No. 5151.

↑↓ 33·00 mm. 228·6 grains (14·81 grammes). (m) Hunterian Coll., No. 54.

↑↓ 31·00 mm. 194·6 grains (12·61 grammes). (g) Berlin Cabinet.

(Nos. 2 and 3 from same *obv.* die as Paris Cabinet, No. 5150 of type No. 113 γ.)

119. *Obv.*—Same as preceding.

Rev.—Same as type No. 113 β, but inscription reads ЄΠIAPXΠP ЄIMOYΔIC Ω around.

Æ. ↑↓ 32·00 mm. 291·5 grains (18·89 grammes). (m) Paris Cabinet, No. 5159.

↑↓ 31·25 mm. 243·8 grains (15·80 grammes). (g) My collection.

↑↓ 32·00 mm. 238·1 grains (15·43 grammes). (m) Vienna Cabinet.

(Nos. 1 and 2 from same *obv.* die as Paris Cabinet, No. 5160 of type No. 113 β.)

120. *Obv.*—Same as type No. 114 *a*. AC C APIA ⌒ above and ΔYO in exergue.

Rev.—Same as type No. 114 *a*, but inscription reads ЄΠIAPXΠP ЄIMOYΔIC Ω around.

Æ. ↑↓ 26·75–25·50 mm. 178·1–126·0 grains (11·54–8·16 grammes). Paris Cabinet, No 5141, pierced, Brit. Mus. Cat. Ionia, Chios, No. 121, Berlin Cabinet (two specimens), and E. Shepherd's Coll.

(Paris specimen from same *obv.* die as that Cabinet's No. 5145 of type No. 114 *a*.)

121 *a*. *Obv.*—Coarsely executed Sphinx, similar to that on types Nos. 112–13, seated l. on plain exergual line, raising nearer forepaw over prow. Above AC CA PIA ⌒. In exergue TPIA. Border of dots.

Rev.—Short amphora, showing open mouth, in laurel-wreath tied below with X/Π l. and I/N r. Around ЄΠIAPXΠ PЄI MOY ΔI C Ω. The whole in border of dots.

Æ. ↑↓ 32·00 mm. 212·2 grains (13·75 grammes). (g) E. T. Newell's Coll. [Pl. IX. 4.]

Five more specimens known with sizes varying from 33·00 to 31·50 mm., and weights from 302·0 to 216·5 grains (19·57–14·03 grammes), all showing the die-position ↑↓. Brit. Mus. Cat. Ionia, Chios, No. 117, Leake Coll., Fitzwilliam Mus., Cambridge, Paris Cabinet, No. 5164, Dr. Imhoof-Blumer's Coll., 1912, and Berlin Cabinet.

121 *β*. *Obv.*—Same as preceding, but Sphinx raises forepaw over amphora and inscription reads X I Ω ⌒ above and N in exergue, or X I ΩN ⌒ above.

Rev.—Two thyrsi crossed in ivy-wreath as on type No. 114 *β*. Within wreath ACCAP IONH MYCY Ω, or ACCA P I ONHM YCY Ω.

Æ. ↑? 23·00 mm. 122·9 grains (7·96 grammes). (g) Coll. B. Yakountchikoff.

↑↓ 24·25 mm. 117·6 grains (7·62 grammes). (g) Paris Cabinet, No. 5123, pierced.

↑↓ 24·50 mm. 102·0 grains (6·60 grammes). (b) Athens Cabinet.

122. *Obv.*—Similar to No. 121 *a*, though of still ruder style, with ACC AP IA ⌒ above and TPIA in exergue.

Rev.—Apollo and Dionysus facing with altar as on type No. 113 *γ*, but between their heads a crescent horns upwards, and ЄΠI APX ΠPЄI MOYΔIC Ω around, and XIΛN in exergue. The whole in border of dots.

Æ. ↑↓ 32·25 mm. 268·4 grains (17·39 grammes). (m) McClean Coll., Fitzwilliam Mus., Cambridge.

↑↓ 31·50 mm. 267·1 grains (17·31 grammes). (b) My collection. (The *obv.* of this coin is from the same die as Mr. E. T. Newell's specimen of type No. 121 *a*, with AC CA PIA ⌒ above.)

123. *Obv.*—Similar to preceding, but Sphinx raises farther forepaw over prow. Above ACC AP IA ⌒, in exergue ΔŸO. Border of dots.

Rev.—Same as type No. 120, and one issue of much inferior style.

Æ. ↑↓ 27·50 mm. 157·6 grains (10·21 grammes). (g) McClean Coll., Fitzwilliam Mus., Cambridge.

↑↓ 30·00–27·5 mm. 163·6–118·1 grains (10·60–7·65 grammes). Paris Cabinet, No. 5140, Brit. Mus. Cat. Ionia, Chios, No. 120, pierced, Athens Cabinet, and my collection, probably ex Whittall Coll. (Nos. 1, 3, and 4 show the inferior reverse.)

124 *a*. *Obv.*—Same die as that of McClean Coll. specimen of type No. 123.

Rev.—Kantharos in ivy-wreath tied below and terminating above in two thyrsus-like knobs. In field l. X Λ r. I N.

Æ. ↑↓ 29·25 mm. 166·6 grains (10·80 grammes). (m) Paris Cabinet, No. 5131. [Pl. IX. 5.]

↑↓ 25·50 mm. 160·0 grains (10·37 grammes). (b) Hunterian Coll., No. 58, pierced.

(There is a third specimen of this issue at Munich, the weight of which I have failed to record.)

124 β. *Obv.*—Same as preceding, but XI ∩ N ⌒ above.

Rev.—Amphora as on type No. 115 β with ACCA PION Ω around.

Æ. ↑↓ 22·25 mm. 77·6 grains (5·03 grammes). (g) Paris Cabinet, No. 5120.

↑↓ 22·00–20·00 mm. 107·2–64·0 grains (6·95–4·15 grammes). Vienna Cabinet, Hunterian Coll., No. 61, Berlin Cabinet, &c. Twelve specimens in all. (Some of these have the ties of type No. 115 α as well as the stars on *rev.*, some the ties only, and some neither the one nor the other.)

124 γ. *Obv.*—Same as preceding.

Rev.—Bunch of grapes. Around ΤΕΤΡΑΧ ΑΛΚΟΝ or ΤΕΤΡΑ ΧΑΛΚΟΝ Ω. The whole in border of dots.

Æ. ↑↑ 16·00 mm. 45·4 grains (2·94 grammes). (g) My collection. [Pl. IX. 6.]

↑↑ and ↑↓ (four specimens) 17·00–15·00 mm. 47·8–32·7 grains (3·10–2·12 grammes). Brit. Mus. Cat. Ionia, Chios, Nos. 110–11, Paris Cabinet, No. 5174, &c. Eleven specimens in all.

124 δ. *Obv.*—Same as preceding.

Rev.—Kantharos with HMIAC APION Ω around. The whole in border of dots.

Æ. ↑↓ 14·00 mm. 27·3 grains (1·77 grammes). (g) Berlin Cabinet. [Pl. IX. 7.]

↑↓ 15·75–14·75 mm. 37·5–29·6 grains (2·43–1·92 grammes). Rev. E. Rogers's Coll., Berlin Cabinet, and my collection.

124 ε. *Obv.*—Same as preceding.

Rev.—Amphora as on type No. 123 γ with ΔIXA l. upwards, and ΛKON r. downwards. Border of dots.

Æ. ↑↑ 14·00 mm. 28·7 grains (1·86 grammes). (m) My collection, bought in Chios.

124 ζ. *Obv.*—Same as preceding except that Sphinx generally raises its farther forepaw over amphora.

Rev.—Homer seated r. on chair with straight back unrolling volumen with both hands. On volumen, in small letters, ΙΛΙ / ΑC. Around ·O· MHPOC, OM HPOC Ω, or ƆOϤ HMO Ω. Border of dots.

Æ. ↑? 17·00 mm. 43·2 grains (2·80 grammes). (g) Dr. Imhoof-Blumer's Coll, 1912. [Pl. IX. 8.]

↑↓ and ↑↑ (two specimens) 17·50–15·00 mm. 52·8–29·5 grains (3·42–1·91 grammes). Brit. Mus. Cat. Ionia, Chios, Nos. 140–1, Hunterian Cat., Nos. 69–70, Paris Cabinet, Nos. 5113–14, &c. Seventeen specimens in all, of which only two, Brit. Mus., No. 141, and Munich, have prow on *obv.* and the weight of one not recorded.

No. 112. *Three-assaria.* I have already given my reasons for placing this unique coin at the beginning of this sub-period. Being very much worn it cannot be reproduced, but its obverse is apparently identical with that of the next type [Pl. IX. 1]. Compared with the other transitional piece, type No. 111, the style of this one is a good step farther removed from the superior work of sub-period *β*. The prow is less well drawn, recalling the treatment followed for rendering this object in sub-period *α*, and the separate lock of hair is no longer displayed on the Sphinx's neck. On the other hand, the dies seem to have been carefully, if

less artistically, cut, and the weights are well maintained. The niceties of style that are still preserved are the curves of the Sphinx's tail and the indication of its farther hind paw behind the nearer, but these features remain constant even on the much inferior work belonging to the end of the sub-period.

The reverse is a revival of that last used on types Nos. 101–2 with certain modifications, among which of course is the later form of amphora first noted on type No. 109 *γ*.

No. 113. *Three-assaria.* These three varieties with the name ΚΟ[ΙΝΤΟC] ΟΥΑ[ΛΕΡΙΟC] ΠΡΕΙΜΟC may or may not be the first issues of this magistrate. The style of the obverse, like that of the last-named type, seems to me to be better than either that of type No. 114 or No. 117, which have just as good a claim to priority from every other point of view. This, combined with the difficulty of assigning an intermediate position to the nameless issue No. 112, has decided me to arrange the coins in the order here given. If any doubt existed as to the proper reading of the magistrate's name it would be resolved by the stops used on No. 113 *β*. This is the only issue known to me that shows this device in the present series, though it becomes common enough in the next sub-period.

No. 114. *Two-assaria* and *One-and-a-half-assarion.* The Sphinx of this type is also turned to the right like the last, but lifts the nearer forepaw and has quite a different appearance. In spite of this it seems possible that these two denominations, which obviously belong to the same issue themselves, may possibly have accompanied the preceding three-assaria.

No. 115. *Assarion.* This type with two different reverses comes pretty close to Nos. 112–13 as regards the general appearance of the Sphinx, although its attitude conforms to that of the last type. I think it may safely be considered a contemporary of the foregoing. The reverse of the unique specimen from the Hunterian Cabinet shows a curious bit of convention in repeating the loops or ties at the foot of the amphora that properly belong to the wreath of the three-assaria pieces (see description of type No. 100).

No. 116, *Dichalkon*, is perhaps the most doubtful of the coins that I have decided to associate with type No. 113. In one respect its obverse more closely resembles that of the three-assaria pieces than does the assarion, No. 115, since it is the Sphinx's farther forepaw that is raised in this case. On the other hand, the arrangement of the lettering on the obverse is the same as that on the group placed at the end of this sub-period, type No. 124 β–ζ, and the Sphinx's upright foreleg, drawn inwards instead of straddled, is more like the same feature on all the later types from No. 121 onwards. The prevalence of the die-position ↑↑ is also more characteristic of the latter portion of the sub-period than of the former—see type No. 124 γ—but very little importance can be attached to the evidence of die-positions at this time. Apart from the total absence of ↑← the arrangement seems to have been quite haphazard.

Still, as all the late types except Nos. 118–20 (for which see remarks below) have the Sphinx to left, there is some justification for assuming that the present issue of dichalka accompanied the coins that record the first magistracy of ΠΡΕΙΜΟC.

No. 117. *Three-assaria* and *Two-assaria.* This type, like No. 114, is another distinctive issue. The nearer foreleg of the Sphinx shows the straddled attitude of Nos. 111–13 in an exaggerated form, but its other traits, especially its long ungainly neck, are more in keeping with the bulk of the coins belonging to the second magistracy and after. The reverse types give no help in determining the position that this issue occupied in the group under examination, since they are quite distinctive like the obverses, and no interchange of dies can have taken place with any other known issue.

The coins in question, especially the three-assaria denomination, are comparatively rare for this period, and none of the specimens that I have seen is sufficiently well preserved for reproduction.

Nos. 118–20. *Three-assaria* and *Two-assaria.* Whatever may be thought about the order in which types Nos. 112–17 should be arranged, there can be very little doubt that these three types must have been the earliest of those struck with the inscription ΕΠΙΑΡΧ ΠΡΕΙΜΟΥΔΙC. In each case there was a reversion to the obverse types of what I have called the first issues of the first magistracy, and from a comparison of dies it is clear that some of the earlier ones were used for these coins in conjunction with the new reverses. In fact, it is more than probable that all the obverse dies were old ones, as the other types of this group all show a falling off in style, and if my attributions are correct some of the coins that preceded these were also of inferior workmanship. The reverses also of types Nos. 118 and 120 are inferior to the corresponding ones on the earlier issues.

No. 121. *Three-assaria* and *One-and-a-half-assarion.* The deterioration characterizing the work that was now being produced is well exemplified by the style of these coins, especially by that of their obverses. The drawing of the prow alone shows it clearly [Pl. IX. 1 and 4]. There can be no reasonable doubt that the one-and-a-half-assarion belongs to the same issue as the three-assaria.

No. 122, *Three-assaria*, is remarkable in providing the last instance of a separate symbol on the Chian coinage. I refer to the crescent between the heads of the gods on the reverse, the meaning of which is not at all obvious. If it is a mint mark it is curious that it should not have been observed on some previous issue, but as a matter of fact it has only appeared once before, on the late drachm with ΡΑΒΙΡΙΟΣ, when it was almost certainly employed as a magistrate's symbol.

It is worthy of note that, though only two specimens of the type are known to me, each should have been struck from quite a different obverse die, the coin in my collection being probably the earlier of the two. The type is clearly a link between Nos. 121 and 123, the arrangement of the obverse lettering on the Cambridge specimen, ACC AP IA in place of AC CA PIA, being the same as that on the two-assaria types, Nos. 123 and 124 *a*.

No. 123. *Two-assaria.* The obverse of this type is slightly more degraded than the last, but it seems highly probable that they formed part of the same issue as has been suggested in the case of Nos. 113 and 114 *a*. The main difference between the obverses of

the two denominations is the same in both groups, the Sphinx raising its nearer forepaw on the three-assaria and its farther one on the two-assaria.

There are two well-defined reverse dies belonging to this type, one of which is markedly inferior in style to the other. It has not been possible to illustrate it, though it affords a good instance of the barbarous work that was now being produced. It is not so easy as a rule to trace the slight differences that occur in the development of the varying reverses, even where figures are concerned, as in that of the ever-recurring Sphinxes with their far greater opportunities for comparison.

No. 124. *Two-assaria, Assarion, Tetrachalkon, Hemi-assarion, Dichalkon,* and *no denomination.* The six varieties assembled under this type cannot definitely be ascribed to one and the same issue though their obverses are practically identical. There is no doubt whatever, I think, that all the coins belong to the very end of the present sub-period, but whether the small denominations, from the assarion downwards, should be classed with types Nos. 122–3, or with the two-assaria piece without a magistrate's name, or partly with one and partly with the other, it is impossible to decide. The two distinct obverse types on the Homereia suggest the last alternative for that particular variety at least.

The two-assaria piece bears witness, through its obverse, to an issue of coins without a magistrate's name having been made between the end of Primus's second magistracy and the time when the reduction of standard took place that divides this sub-period from the next. It will be noted that the two specimens

of which I have records both weigh more than the average not only of their contemporaries but also of the obols assigned to sub-period β.

The kantharos on the reverse has already been alluded to in the introduction with reference to the continuity of types.

It seems unlikely that this should have been the only issue of tetrachalka, yet it is certainly the only one that has survived.

The Homereia are of interest as illustrating, in addition to the instances already given, the great falling off in the work of this sub-period as compared with that of the last [Pl. VIII. 12 and Pl. IX. 8]. The third alternative form of lettering on the reverse is truly retrograde, an allusion doubtless to the antiquity of the subject, and not the inverted style of types Nos. 110–11. The word ΙΛΙΑϹ, on the volumen, may not have been engraved on every issue, but there can be no doubt of its existence on Dr. Imhoof-Blumer's fine specimen. I cannot vouch for the presence of similar letters on any of the coins attributed to the two earlier sub-periods.

Sub-period δ.

The coins now to be described, the last products of the Chian mint, are both the easiest to attribute in a general sense and the most difficult to arrange in their particular order of all those struck in imperial times. The reduced weights are the chief and invariable characteristic of the whole group, and the comparatively small size of the flans is also typical of a large portion of it. Certain other features distinguish these issues from all their predecessors, such

as the spelling ΔΥΠ in place of ΔΥΟ, the form assumed by the letter V on all the coins of small module, and the misspelling ACAPIA on one particular group of the latter. The weights alone, which are no more than half those of the preceding sub-period on the average, make it easy to pick out any of these coins from the mass of imperial Chian issues.

On the other hand, with the exception of the first five types to be described, which on account of their larger size and slightly greater weight may be assumed to have been the first of those struck according to the new standard, I find it practically impossible to determine the probable order in which the coins of this sub-period were issued. Not only are the obverse types, especially of all issues included under Nos. 130–47, almost wholly distinct from one another, so that no hint can be gained as to their possible inter-development, but there are so many exchanges of dies among them, both obverse and reverse, that they only serve to increase the confusion. Even the issues bearing magistrates' names seem to be inextricably mixed up with those without them.

The style at first seems to have followed the downward tendency observed towards the end of the last sub-period till a very low level indeed was reached. Then, with the appearance of the types distinguished by their smaller size, a certain improvement in workmanship is to be remarked. The change both in style and fabric is so great that it can only be explained by supposing that a certain interval of time must have elapsed between the two groups in question. Type No. 137 introduces an heraldic-looking Sphinx with reverted head that offers a complete contrast to all its

forerunners and, whether rightly or wrongly, forms a fitting tail-piece to their long and almost unbroken line.

The coins are by far the most plentiful of the imperial series and the number of issues must have been very great. In fact, the minor varieties are so numerous, especially among the reverse types, that it would be both wearisome and unprofitable to record them all.

Two magistrates' names appear, ЄIPHNAIOC among the larger pieces placed at the beginning of the subperiod, and AVP·XPVCOГONOC, sometimes with the added cognomen OЄПA·I·POΔ(Є)ITOC, among the smaller ones with which the catalogue is closed.

The only denominations that occur are the three-assaria, the two-assaria, and the assarion, while contemporaneously with them were issued at one or other of the two mints concerned the well-known "alliance" pieces between Chios and Erythrae or Smyrna.

125. *Obv.*—Sphinx of very rude style, hair in chignon, wing springing from middle of back, seated l. on plain exergual line, and raising farther or nearer forepaw over prow. Around C[C]API AT PIA ⌒, in exergue AXIΛN; or above [ACC] A PIA ⌒, in exergue TPIA. The whole in border of dots.

Rev.—Apollo and Dionysus with altar as before but heads facing inwards. Around ЄП AP XЄI P HNA ⌒, in exergue IOY; or around ЄПI APX ЄIP HNAIOY ⌒, in exergue XIΛN. The whole in border of dots.

Æ. ↑↓ 31·25 mm. 115·6 grains (7·49 grammes). (g) Berlin Cabinet. [Pl. IX. 9.]

↑↓ and ↑↑ 31·00–29·00 mm. 163·1–111·6 grains (10·50–7·23 grammes). Paris Cabinet, No. 5154, Munich Cabinet, Vienna Cabinet, &c. Six specimens in all. (The Munich specimen has no altar between gods on *rev.*)

126. *Obv.*—Similar Sphinx seated r. raising farther forepaw over prow. Around AC CAP IA ⌒, in exergue TPIA. Border of dots.

Rev.—Same as preceding. Around ЄΠΙ APX ЄIP HNAIOY ⌒, in exergue XIΛN. Border of dots.

Æ. ↑↑ 29·50 mm. 139·1 grains (9·10 grammes). (g) Paris Cabinet, No. 5153.

↑↑ 29·00 mm. Wt. ? (b) Munich Cabinet.

127 *a*. *Obv.*—Same as type No. 125 with nearer forepaw raised. Above AC C API A or AC CA PIA ⌒, in exergue TPIA. Border of dots.

Rev.—Amphora in conventional laurel-wreath with poppy-heads at foot, to l. X Λ to r. I N.

Æ. ↑↓ and ↑↑ 32·00–28·25 mm. 153·9–120·8 grains (9·97–7·83 grammes). Hunterian Coll., No. 65, Paris Cabinet, Nos. 5165–6 and 5168, &c. Ten specimens in all.

127 *β*. *Obv.*—Same as preceding, but Sphinx raises farther forepaw. Above AC C APIA ⌒, in exergue ΔYΛ. Border of dots.

Rev.—Kantharos in ivy-wreath with X Λ l. and I N r.

Æ. ↑↓ 25·75–23·50 mm. 116·5–91·1 grains (7·55–5·90 grammes). Paris Cabinet, No. 5134, Berlin Cabinet, Sir H. Weber's Collection, and W. S. Lincoln's stock, 1913.

127 *γ*. *Obv.*—Same as preceding, but Sphinx raises farther forepaw over bunch of grapes. Above X I Λ ⌒, in exergue N. Border of dots.

Rev.—Amphora with handles twisted like those of kantharos. To l. ACCA upwards, to r. PIOII (*sic*) downwards. Border of dots.

Æ. ↑↑ 20·00 mm. 49·7 grains (3·22 grammes). (g) My collection.

128. *Obv.*—Same die as that of Paris Cabinet, No. 5153, type No. 126.

Rev.—Same die as that of Paris Cabinet, No. 5166, type No. 127 *a*.

Æ. ↑↑ 27·75 mm. 152·0 grains (9·65 grammes). (g) My collection.

129. *Obv.*—Same as preceding.

Rev.—Similar to type No. 125, but without magistrate's name.

Æ. ↑↑ 29·50 mm. 127·6 grains (8·27 grammes). (b) Athens Cabinet.

130 *a*. *Obv.*—Sphinx, of more careful workmanship than preceding, seated r. on plain exergual line, hair arranged so as to show a peak in front as well as the usual chignon, nearer foreleg straddled, and raising farther forepaw over prow. Above ACC A PIA ⌒, in exergue TPIA. Border of dots.

Rev.—Apollo and Dionysus with altar as before, but heads facing to front. Around ЄΠA PAV-XPV COГO N ǑTOVЄΠA·I·POΔЄITOV Ↄ, the last seven letters in exergue. Between the gods XI / N. Border of dots.

Æ. ↑↑ 26·00–25·25 mm. 115·0–96·3 grains (7·45–6·24 grammes). Paris Cabinet, No. 5149, Berlin Cabinet, Brit. Mus. recent acquisition, and my collection.

130 *β*. *Obv.*—Same as preceding, but AC C APIA ⌒ above and ΔVN in exergue.

Rev.—Single male figure facing as before, but no helmet in field l. Around, in two concentric circles, ЄΠIAPXAVPXVCOГ ONǑTOV-ЄΠA·I·P OΔЄITOV XIN. Border of dots.

Æ. ↑↓ 24·00 mm. 81·0 grains (5·25 grammes). (m) Paris Cabinet, No. 5144. [Pl. IX. 10.]

↑↓ 23·50 mm. 69·9 grains (4·53 grammes). (b) Berlin Cabinet.

131. *Obv.*—Sphinx in crouching attitude, with hair falling on shoulders in long curls, seated r. on plain exergual line and raising nearer forepaw over prow. Above ACCAP IA ⌒, in exergue TPIA and star to r. Border of dots.

Rev.—Same as type No. 130 *a*, but inscription reads ЄΠΑΡ ΑVΡΧΡV COГON Ὁ TOVЄΠΑ·I·P OΔЄITOV Ↄ, the last seven letters in exergue.

Æ. ↑? 26·50 mm. 92·4 grains (5·95 grammes). (g) Dr. Imhoof-Blumer's Coll.

132 *a*. *Obv.*—Same as preceding, but no star in exergue.

Rev.—Amphora standing on a short line between two ears of corn with a star in field above on either side. Around ЄΠΑΡΧ·ΑVΡ·ΧΡV COГO-NOV·XIΛN· Ↄ. Border of dots.

Æ. ↑↓ 27·75 mm. 108·0 grains (7·00 grammes). McClean Coll., Fitzwilliam Mus., Cambridge. [Pl. IX. 11.]

↑↓ 26·00–24–50 mm. 131·9–98·9 grains (8·55–6·41 grammes). Paris Cabinet, No. 5138, W. S. Lincoln's stock, 1913, Vienna and Munich Cabinets. (The weight of last not known.)

132 *β*. *Obv.*—Same as preceding, but ΔVΛ in exergue.

Rev.—Single male figure facing as before, sometimes with helmet at feet to l. Around ЄΠΑΡΧ·ΑV·Χ PVCOГONOV Ω. In field l. $\frac{X}{\Lambda}$ r. $\frac{I}{N}$. Border of dots.

Æ. ↑↓ 24·75–22·00 mm. 98·6–67·4 grains (6·39–4·37 grammes). Paris Cabinet, Nos. 5142–3, Berlin Cabinet (two specimens, on which the upper obverse inscription reads ΑCCAPA), and Leake Coll., Fitzwilliam Mus., Cambridge.

132 *γ*. *Obv.*—Same as preceding.

Rev.—Kantharos. Around ЄΠΑΡΑVΧΡ V CO-ГONOVXI Ω with Λ in field l. and N r., or ЄΠΑΡΧΡV COГONOV Ω with $\frac{X}{\Lambda}$ in field l. and $\frac{I}{N}$ r., the two upper letters within the handles of kantharos. Border of dots.

Æ. ↑↓ 25·00–22·00 mm. 110·0–47·8 grains (7·13–3·10 grammes). Paris Cabinet, Nos. 5135–6, Athens Cabinet, Berlin Cabinet, &c. Nine specimens in all, on some of which the misspelling ACAPIA occurs.

133 *α*. *Obv.*—Same die as type No. 131.

Rev.—Amphora similar to that on type No. 132 *α*, between two groups consisting of two ears of corn with a poppy-head between them, and a star in field on either side. To l. XI upwards, to r. ∩N downwards. Border of dots.

Æ. ↑↓ 28·50 mm. 128·7 grains (8·34 grammes). (m) My collection; probably struck on an old flan.

133 *β*. *Obv.*—Same as preceding, but ΔV∩ in exergue.

Rev.—Kantharos with star in field on either side of stem. To l. XI upwards, to r. ∩N downwards. Border of dots.

Æ. ↑↓ 24·50 mm. 69·4 grains (4·50 grammes). (m) Athens Cabinet.

134. *Obv.*—Same as type No. 131. ACCAP IA ⌒ above, and TPIA with star to r. in exergue.

Rev.—Apollo and Dionysus standing facing with altar. Around X I ∩ N ⌒. Star in exergue.

Æ. ↑↓ 28·00–26·00 mm. 140·7–100·3 grains (9·12–6·50 grammes). Berlin Cabinet (two specimens), Athens Cabinet (two specimens), and Dr. Imhoof-Blumer's Coll., the last specimen struck from the same obverse die as that of types Nos. 131 and 133 *α*.

135. *Obv.*—Same as preceding.

Rev.—Small amphora with ears of corn at foot standing in laurel-wreath tied below, and space between upper ends filled by a ring. In field l. $\frac{X}{\cap}$, r. $\frac{I}{N}$. The whole in dotted border.

Æ. ↑↓ 26·50–25·00 mm. 125·5–91·7 grains (8·13–5·94 grammes). Paris Cabinet, No. 5167, Berlin, Vienna, and Athens Cabinets, and Sir H. Weber's Coll. (one pierced).

136 *a*. *Obv.*— Similar to preceding, but Sphinx has hair in chignon and lifts nearer forepaw over amphora. Above X I ∩ ⌒, in exergue N. Border of dots.

Rev.—Two thyrsi crossed in ivy-wreath composed of single leaves set in opposite directions from the top, where hangs a bunch of grapes. Within wreath ACCA PION HM Q and V C V ⌒ part of inner circle, or ACA PI ONH MV Q and C V within. The whole in border of dots.

Æ. ↑↓ and ↑↑ (two specimens) 20·50–19·00 mm. 70·1–47·7 grains (4·54–3·09 grammes). Paris Cabinet, No. 5127, Brit. Mus. Cat. Ionia, Chios, Nos. 136 [Pl. IX. 12] and 137, &c. Nine specimens in all. (One specimen at Athens was found in Delos during the excavations of 1906–8.)

136 *β*. *Obv.*—Same as preceding.

Rev.—Similar to preceding, but a dotted border takes the place of wreath, and inscription, in larger letters, reads ACCAP IONH MV around Q, and CV in field l. In field r. star, and bunch of grapes above.

Æ. ↑↑ 22·00–19·75 mm. 77·2–43·8 grains (5·00–2·84 grammes). Paris Cabinet, Nos. 5125 and 5128, Brit. Mus. Cat. Ionia, Chios, No. 138, &c. Seven specimens in all.

137. *Obv.*—Sphinx with two wings showing and head reverted, hair dressed in close curls, seated r. on plain exergual line, raising farther forepaw over prow. Around ACAPI A T P IA· Q, the last two letters and stop in exergue. Plain line or dotted border.

Rev.—Similar to that of type No. 132 *a*. but no stars in field. Around ЄΠAVPXPVCOГON OV· TOVЄΠA·I·POΔ Q and ЄIT OV ·X IΩN· ⌒ part of inner circle. Border of dots.

Æ. ↑↓ and ↑↑ 26·00–23·50 mm. 134·6–83·2 grains (8·72–5·39 grammes). Brit. Mus. Cat. Ionia, Chios, No. 128, Paris Cabinet, Nos. 5137 and 5139 [Pl. IX. 13 for *obv.*], Vienna and Berlin Cabinets (three specimens in latter), and Sir H. Weber's Coll.

138 *α*. *Obv.*—Same as preceding.

Rev.—Similar to that of type No. 130 *α*, but around ЄΠI APX PV COΓONOV ⌒, and in exergue XIΛN.

Æ. ↑↓ 25·50 mm. 87·0 grains (5·64 grammes). (b) Berlin Cabinet.

138 *β*. *Obv.*—Same as preceding.

Rev.—Apollo and Dionysus as before, but of very degraded style, heads facing inwards and no altar between the gods. Around ЄΠI APX·X PV COΓONOV· Ω, in exergue XIΛN. Border of dots.

Æ. ↑↑ and ↑↓ (one specimen) 27·50–24·50 mm. 120·4–91·7 grains (7·80–5·94 grammes). Paris Cabinet, No. 5148, Hunterian Coll., No. 64, &c. Nine specimens in all. (Paris specimen from same *obv.* die as that of No. 5139 of type No. 137.)

139. *Obv.*—Same as preceding.

Rev.—Similar to that of type No. 132 *α*, but around ЄΠAPXAVPXPV COΓONOV·XI Ω, and Λ N in field l. and r. above the stars. Border of dots.

Æ. ↑↓ 27·25–25·50 mm. 135·0–115·0 grains (8·75–7·45 grammes). Brit. Mus. Cat. Ionia, Chios, No. 129, &c. Four specimens in all.

140. *Obv.*—Same as preceding.

Rev.—Similar to that of type No. 135 without the ears of corn, and field occupied by inscription

ЄΠ AP
AV XP
VCO ΓON
OV XI
Λ N

Æ. ↑↑. 25·50 mm. 96·5 grains (6·25 grammes). (g) Brit. Mus. Cat. Ionia, Chios, No. 130.

(Another specimen from same *rev.* die in private hands at Chios, weight unknown.)

141 *a*. *Obv.*—Same as preceding, but Sphinx sometimes raises nearer forepaw. Above ACAP I A ⌒, in exergue ΔVՈ. Plain line or dotted border.

Rev.—Same as type No. 132 *β*. Around ЄПАРХ· AV·X PVCOГONOV Ω with X Ո in field l. and I N r., or ЄП·АР·АV·ХРVС ОГОNOV·XI Ω with Ո in field l. and N r.

Æ. ↑↓ 24·25–22·0 mm. 101·5–75·9 grains (6·58–4·92 grammes). Brit. Mus. Cat. Ionia, Chios, No. 132. Paris Cabinet, No. 5147, &c. Six specimens in all.

141 *β*. *Obv.*—Same as preceding, but Sphinx raises nearer forepaw. Above ACC A PA ⌒, in exergue ΔVՈ. Border of dots.

Rev.—Similar to preceding, but hero's head is turned to r.; at his feet helmet. Around ЄПАРАVХР VCOГONOV Ω with X Ո in field l. and I N r. Border of dots.

Æ. ↑↓ 23·00 mm. 77·0 grains (4·99 grammes). Brit. Mus. Cat. Ionia, Chios, No. 131.

142. *Obv.*—Same as preceding, but Sphinx raises farther forepaw. Above ACAP I A ⌒, in exergue ΔVՈ.

Rev.—Kantharos. Around ЄПАРАVХР V CO-ГONOVXI Ω, in field l. Ո and r. N., or ЄП·ХРVС ОГONOV Ω, in field l. X Ո and r. I N. Border of dots.

Æ. ↑↓ 22·00 mm. 75·9 grains (4·92 grammes). pierced, Brit. Mus. Cat. Ionia, Chios, No. 133.

↑↓ 22·50 mm. 62·6 grains (4·06 grammes). (m) My collection, found in Chios.

143 *a*. *Obv.*—Same as type No. 137. ACAPI A T P IA· around Ω.

Rev.—Apollo and Dionysus facing with altar between them. In field r. star. Above X I ∩ N. Border of dots.

Æ. ↑↓ 25·50–24·50 mm. 135·2–102·1 grains (8·76–6·62 grammes). Brit. Mus. Cat. Ionia, Chios, No. 134 (same *obv.* die as No. 129 of type No. 139), Munich, Vienna, and Berlin Cabinets (one pierced).

143 *β*. *Obv.*—Same as preceding.

Rev.—Similar to type No. 138 *β*, but X I ∩ around ⌒, and N in exergue. Border of dots.

Æ. ↑↑ 23·50 mm. 119·1 grains (7·72 grammes). (g) Vienna Cabinet.

↑↑ 25·50 mm. 101·2 grains (6·56 grammes). (b) My collection.

144. *Obv.*—Same as preceding.

Rev.—Same as type No. 135, but sometimes a star in field on either side below letters.

Æ. ↑↑ 26·50–24·50 mm. 142·8–100·3 grains (9·70–6·50 grammes). Hunterian Coll., No. 66 (same *obv.* die as No. 64 of type No. 138 *β*), Paris Cabinet, No. 5169 (same *obv.* die as No. 5139 of type No. 137 and No. 5148 of type No. 138 *β*) [**Pl. IX. 13** for *rev.*], &c., Six specimens in all.

145 *a*. *Obv.*—Same as type No. 141 *a*. Sphinx raises nearer forepaw. Above ACAP I A ⌒, in exergue ΔVΩ.

Rev.—Same as type No. 141 *a* with helmet at hero's feet, but no magistrate's name and a star on either side in field.

Æ. ↑↑ 22·25 mm. 92·4 grains (5·99 grammes). (b) Berlin Cabinet.

145 *β*. *Obv.*—Same as preceding except that Sphinx sometimes raises farther forepaw.

Rev.—Same as type No. 141 *β*, but no magistrate's name and a star on either side in field below letters.

Æ. ↑↓ 23·25 mm. 98·5 grains (6·38 grammes). (g) My collection.

↑↑ 25·00 mm. 81·2 grains (5·26 grammes). (m) Athens Cabinet, found in Delos, 1906–8, *Journ. Internat. d'Arch. Num.*, 1911, p. 79.

↑↓ 23·50 mm. 70·7 grains (4·58 grammes). (b) pierced, Berlin Cabinet.

146. *Obv.*—Same as preceding.

Rev.—Same as type No. 142, but no magistrate's name and a star in field on either side of kantharos below letters.

Æ. ↑↓ and ↑↑ (two specimens) 25·25–22·25 mm. 98·9–64·2 grains (6·41–4·16 grammes). Brit. Mus. Cat. Ionia, Chios, No. 135, Paris Cabinet, Nos. 5132–3 (the former pierced), Athens Cabinet (found in Delos), &c. Seven specimens in all.

147. *Obv.*—Same as preceding, but Sphinx raises farther forepaw with X I ∩ ⌒ above, and N in exergue.

Rev.—Amphora on a short line between ears of corn. To l. ACA upwards, to r. PIO (*sic*) downwards; a star in field on either side above letters. Border of dots.

Æ. ↑↑ 16·50 mm. 36·4 grains (2·36 grammes). (g) Paris Cabinet, No. 5106. [Pl. IX. 14.]

Nos. 125–9. The fabric of all these types which preserve the old module more or less is peculiar, the flans being unusually thin. They must have followed very closely after types Nos. 123–4 of the last sub-period, as the style of the two groups is very similar allowing for the rapid degradation that characterizes the present one. The arrangement of the lettering on the three-assaria, No. 125, is particularly clumsy.

The obverse inscription of the assarion No. 127, with N in the exergue, is typical of this sub-period (see types Nos. 136, 143 β, and 147), and would be sufficient to justify the attribution here if the weight and general appearance of the coin did not also recommend it.

Nos. 130–47 comprise the coins of small module which I have not attempted to arrange chronologically. They will be observed to have the Sphinx on their obverses turned to the right in every instance, unlike the issues of the heavier coinage, on which the position was being changed constantly.

The three-assaria and two-assaria of type No. 130 seem to have been modelled on the earlier coins described under type No. 117.

The two rare sub-types without a magistrate's name described under No. 133 may be taken as having belonged to the same issue on account of the similarity in the arrangement of the reverse inscription on both denominations. The unusual size of the three-assaria is no doubt to be accounted for by its having been struck on an old flan, possibly from the group represented by types Nos. 125–9.

It is interesting to compare the size of the one-and-a-half-assarion, No. 136, with that of the early issues of this denomination [Pl. VIII. 5]. It may also be noted that the wreaths round the reverse types tend to disappear during this sub-period, and thus unconsciously repeat the simpler designs of the first imperial issues. Some of the dotted borders too are replaced by plain line circles.

I am not enumerating the "alliance coins" that belong to this period, because they are only an offshoot of the Chian series and have no bearing on its chrono-

logical arrangement. One of them, however, does seem to testify to the fact that the mint was still open in the middle of the third century of our era. This is the large piece in Berlin engraved with the bust and name of the Emperor M. Julius Philippus, who died in A.D. 249. The coin was published by Dr. Julius von Schlosser in *Num. Zeitschrift,* 1891, p. 13.

Note.—Since completing my Period IX (pp. 141 ff.) I have been kindly informed by Mr. E. T. Newell that tetradrachms of Alexandrine types with little Sphinxes forming part of the throne-legs on the reverse occur among the second-century issues of Alabanda, Magnesia, Cyme, and Temnus, as well as of Chios. This ornament cannot therefore be considered a distinguishing mark of the Chian Alexanders, as I had suggested on p. 169.

Mr. Newell also writes that the magistrate's name on his small bronze coin included under my type No. 68 "has every appearance of once having read ΕΚΤΟΡ - - -". I am accordingly cancelling the uncertain reading [Ε]Κ - ΟΔ - - in my list of magistrates, p. 199, and welcome the new one as being in accordance with the hope that I had ventured to express on p. 179.

For both these pieces of information I am very grateful.

I have now to acknowledge my long-standing indebtedness to those who have assisted me with casts or correspondence, or in other ways; to M. E. Babelon and his staff at the Bibliothèque Nationale, Paris; to M. J. N. Svoronos and his assistant at Athens; to Dr. G. Macdonald, Dr. F. Imhoof-Blumer, Sir Hermann Weber, M. B. Yakountchikoff, Mr. R. Jameson, Mr.

E. T. Newell, the late Rev. Canon W. Greenwell, the Rev. E. Rogers, Mrs. Baldwin-Brett, Mr. S. W. Grose, Mr. E. Shepherd, and Mr. F. W. Peterson; to the Keepers of the Coin Cabinets at Berlin, Vienna, Munich, the Fitzwilliam Museum, Cambridge, Aberdeen University, the Metropolitan Museum of New York, the Museum of Fine Arts, Boston, U.S.A., and the Public Library at Chios. To Mr. G. F. Hill, Keeper of the National Collection, I cannot sufficiently express my gratitude for his never-failing courtesy and readiness to help under all circumstances and on every subject. In reading the proofs of the above he has saved me from numberless pitfalls. To him and to his assistants at the British Museum I owe my warmest thanks.

In conclusion I wish to record my regret that, in consequence of the war, I have been unable to pursue these researches as far as I might have done otherwise. At the same time I cannot forget that the arrangement of my material, such as it is, has procured me many an enviable respite from what Dr. Walter Leaf has somewhere called "the great preoccupation". For this I have to thank the study of Greek numismatics and, in particular, that of the coins left behind by those who once dwelt in the island home of my ancestors.

Errata

Note 16, p. 8, *for* Mémoire sur l'Ile de Chio, *read* Questions Historiques.

Pp. 38 and 40, *for* Municipal Museum, New York, *read* Metropolitan Museum, &c.

P. 89, for τεσσεράκοστὴ *read* τεσσαράκοστὴ.

P. 199, *for* 133 (?)-84 B.C., *read* 133 (?)-88 B.C.

P. 247, note 124, *for* Κῶστος *read* Κῶτσος.

APPENDIX I

Summary of coin-weights recorded above under types Nos. 96–147.—Weights in grammes.

(The early assarion, No. 95, is omitted as representing a separate class, its average weight being 9·97 grammes.)

Denomination.	*Obv. symbol.*	*Rev. type.*	*Sub-period α.*				*Sub-period β.*			
			No. of pieces.	*Maximum weight.*	*Minimum weight.*	*Average.*	*No. of pieces.*	*Maximum weight.*	*Minimum weight.*	*Average.*
3 assaria	Prow	Amphora, or Statues of Apollo and Dionysus	8	23·51	15·60	18·66	27 (5 pd.)	23·61	11·70	16·40
Obol	Prow	Kantharos, or Statue of a Hero	9 (1 pd.)	14·40	9·80	11·68	17 (1 pd.)	16·47	7·19	10·31
2 assaria			—	—	caret	—	—	—	caret	—
1½ assarion	Prow, Aplustre, Club, or Amphora	Crossed Thyrsi	6	11·50	7·41	9·98	8 (1 pd.)	10·27	4·45	7·41
1 assarion	Bunch of Grapes, or Prow	Amphora	—	—	caret	—	11	7·23	4·45	5·77
¼ chalkoi	Prow	Bunch of Grapes	—	—	caret	—	—	—	caret	—
3 chalkoi	(?)	Kantharos	4	4·05	3·34	3·65	—	—	caret	—
½ assarion	Nothing, or Prow		6	4·00	1·75	2·79	16	3·43	1·58	2·84
2 chalkoi	Nothing, or Prow	Amphora	2	2·00	1·88	1·94	8	3·34	2·05	2·64
No denom.	Kantharos, Prow, or Amphora	Seated figure of Homer	2	5·22	3·74	4·48	5	4·41	3·34	3·63

APPENDIX I

Summary of coin-weights recorded above under types Nos. 96–147.—Weights in grammes.

(The early assarion, No. 95, is omitted as representing a separate class, its average weight being 9·97 grammes.)

Denomination.	*Obv. symbol.*	*Rev. type.*	*Sub-period γ.*				*Sub-period δ.*			
			No. of pieces.	*Maximum weight.*	*Minimum weight.*	*Average.*	*No. of pieces.*	*Maximum weight.*	*Minimum weight.*	*Average.*
3 assaria	Prow	Amphora, or Statues of Apollo and Dionysus	28 (4 pd.)	19·57	12·11	16·036	75 (2 pd.)	10·50	5·39	7·704
Obol	Prow	Kantharos, or Statue of Hero	—	—	caret	—	—	—	caret	—
2 assaria			20 (3 pd.)	11·54	7·47	9·55	41 (3 pd.)	7·55	3·10	5·45
1½ assarion	Prow, Aplustre, Club, or Amphora	Crossed Thyrsi	15 (2 pd.)	10·19	6·55	7·80	16	5·00	2·84	3·78
1 assarion	Bunch of Grapes, or Prow	Amphora	17	6·95	4·15	5·15	2	3·22	2·36	2·79
4 chalkoi	Prow	Bunch of Grapes	12	3·10	2·12	2·71	—	—	caret	—
3 chalkoi	(?)	Kantharos	—	—	caret	—	—	—	caret	—
½ assarion	Nothing, or Prow		4	2·43	1·77	2·056	—	—	caret	—
2 chalkoi	Nothing, or Prow	Amphora	5	2·34	1·51	1·96	—	—	caret	—
No denom.	Kantharos, Prow, or Amphora	Seated figure of Homer	17	3·25	1·91	2·81	—	—	caret	—

APPENDIX II

List of magistrates' names belonging to Period XI, showing the varieties on which they occur, and the sub-periods to which they are assigned.

	Sub-period α.	*Sub-period β.*	*Sub-period γ.*	*Sub-period δ.*
Ἀντίοχος Ἀπολλωνίδου . .	96 α and 96 β	—	—	—
Αὐρ[ήλιος] Χρυσόγονος ὁ Ἐπαφρόδ(ε)ιτος (ἐπὶ ἄρχ.)	—	—	—	130–2 and 137–42
Εἰρηναῖος (ἐπὶ ἄρχ.) . . .	—	—	—	125–6
Κο[ΐντος] Οὐα[λέριος] Πρεῖμος (ἐπὶ ἄρχ.)	—	—	113–23	—
Στεφανήφορος	97 α and 97 β	—	—	—
Φαῦστος	95	—	—	—

List of all the Chian magistrates recorded above with their approximate dates.

[N.B.—The names marked with an asterisk do not occur under Chios in R. Münsterberg's *Die Beamtennamen auf den griechischen Münzen*, Wien, 1914, and those marked with a dagger are not to be found in Bechtel and Fick's *Die griechischen Personennamen*, Göttingen, 1894. R. of A. = reign of Augustus.]

	B. C.
*Ἀγα - -	412–334
*Ἀγγε - -	412–334
*Ἀγ[γ]ε - -	84–R. of A.
*Ἀγγέλης	301–190
Ἀγγελίσκος	190–133 (?)
Ἀθη - -	84–R. of A.
*Ἀθηνά[γόρας]	412–334
*Ἀθηναγ[όρας]	84–R. of A.
Ἀθήναιος	84–R. of A.
Ἀθηνικῶν	133 (?)–88
Αἰσχίνης	133 (?)–88
Ἀλκίμαχος	190–133 (?)
*Ἄμανος	84–R. of A.
*Ἀμφιλο - -	412–334
Ἀμφιμήδης	412 334
†Ἀνδρώναξ	133 (?)–88
*Ἀντικλ[ῆς]	133 (?)–88
Ἀντίοχος Ἀπολλωνίδου	R. of A.–A. D. 68
Ἀντιφῶν	190–133 (?)
Ἀπελλᾶς	133 (?)–88
Ἀπελλῆς	133 (?)–88
*Ἀπολλω[νίδης]	412–334
*Ἀπολλ[ωνίδης]	190–133 (?)
Ἀπολλων[ίδης]	133 (?)–88, 84–R. of A.
Ἀργεῖος	190–133 (?)
Ἀργεῖος	133 (?)–88
†*Ἀργῆος	84–R. of A.
Ἀρίσταιχμος	84–R. of A.
*Ἀρίστης	412–334
Ἀριστοκλῆς	84–R. of A.
Ἀριστόμ[αχος]	190–133 (?)
*Ἀριστόμ[αχος?]	84–R. of A.
Ἀρτεμῆς	133 (?)–88
Ἀρτεμίδωρος	133 (?)–88, 84–R. of A.
Ἀρτέμων	412–334
*Ἄσμενος	412–334
*Ἄσμενος	301–190

Ἄσμενος	84–R. of A.
*Ἀσπάσιος	190–133 (?)
Ἀσπάσιος	84–R. of A.
†Ἀσφάλης	84–R. of A.
Αὐρ[ήλιος] Χρυσόγονος ὁ Ἐπαφρόδ(ε)ιτος	A. D. 150 (?)–268
	B. C.
Βασιλείδης	412–334
Βάτις	301–190
†Γέρως	412–334
Γλαῦκος	84–R. of A.
Γνῶσις	190–133 (?)
Γοργίας	133 (?)–88 84–R. of A.
Δέκμος	84–R. of A.
Δερκύλος	133 (?)–88
Δημήτριος	190–133 (?)
*Δημοκλῆς	133 (?)–88
Δημοκράτης	412–334
*Δημοκρά[της]	133 (?)–88
Διογένης	84–R. of A.
Διόγνητος	190–133 (?)
Διόδωρος	84–R. of A.
*Διομήδης	133 (?)–88
*Διονυ - -	84–R. of A.
*[Δ]ιοσκου[ρίδης]	412–334
Δωρόθεος	190–133 (?)
	A. D.
Εἰρηναῖος	150 (?)–268
	B. C.
*Ἕκτορ - -	133 (?)–88
†*Εὔνομος	301–190
Εὐρύνομος	412–334
Ἐπαίνε[τος]	412–334
Ἕρμαρχος	412–334
*Ἑρμόστρατ[ος]	301–190
Ἑρμόφαντος	412–334
*Ἑρμόφαντος	133 (?)–88
*Ἑρμώναξ	301–190
*Ἑρμώνα[ξ]	190–133 (?)
Ἑστιαῖος	190–133 (?)
*Ἑστι[αῖος ?]	84–R. of A.
Εὔδημος	84–R. of A.
Εὐκλέων	190–133 (?)
Εὐκλῆς	190–133 (?)
Εὔξενος	133 (?)–88
Ζῆνις	133 (?)–88
Ζηνόδοτος	190–133 (?)
Ζηνόδωρος	133 (?)–88
Ζήνων	412–334
Ζήνων	190–133 (?)
Ἡγέμων	190–133 (?)
*Ἡγη - -	84–R. of A.
*Ἡγήμ[ων]	84–R. of A.
*Ἡγήσιπ[πος]	412–334
Ἠίθεος	301–190
Ἡλιόδωρος	133 (?)–88
†Ἡραγόρης	412–334
*Ἡραῖος	133 (?)–88
*Ἡράκλειτος	190–133 (?)
†Ἡριδανός	412–334
*Ἡριδανός	301–190
*Ἡρο[δ] - -	301–190
Ἡροκράτ[ης]	133 (?)–88
Ἡροκράτ[ης]	84–R. of A.
Ἡρόστρα[τος]	190–133 (?)
*Θεόδοτος	301–190
Θεόδωρος	412–334
*Θεόδω[ρος]	190–133 (?)
*Θεόδωρος	84–R. of A.
Θεόπομπος (and Θεύπο(μ)πος)	301–190
Θεῶττις (and Θεῦττ[ις])	412–334
Θερσῆς	190–133 (?)
Θεῦμνις	133 (?)–88
Θήρων	412–334
*Θήρων	301–190
Ἱεράνυμος Ἀπολλωνίου	84–R. of A.
*Ἱκέσιος	412–334
Ἱκέσιος	190–133 (?)
Ἱππίας	412–334
†Ἱππίης	412–334
Ἱστι[αῖος]	412–334
*Ἱστιαῖος	301–190
†Ἰσχίμα[χος]	412–334
Καλλικλῆς	412–334
Καυκασίων	190–133 (?)
Κηφισίδη[ς]	190–133 (?)
Κηφισόκριτος	412–334
†Κλείδης	133 (?)–88
Κλείτων	301–190
Κο[ΐντος] Οὐα[λέριος] Πρεῖμος	A. D. 117–150 (?)
	B. C.
Κόρωνος	133 (?)–88
Κράτων	190–133 (?)
*Κρίτων	301–190
†Κύλλανος	190–133 (?)
Λάμπρος	190–133 (?)
Λανδαρι - -	412–334
†Λάσων	190–133 (?)
Λεωμέδων	190–133 (?)
Λεωνίδης	84–R. of A.
†Λέωχος	412–334
Λυκόρ[μας or -τας]	412–334
*Λυσικρ[άτης]	190–133 (?)
*Μενεκλῆς	133 (?)–88
Μενεκράτης	190–133 (?)
Μενεκράτης	84–R. of A.

Μενεσθεύ[s]	190–133 (?)
*Μένιππος	84–R. of A.
Μηνογένη[s]	133 (?)–88
*Μηνόδωρος	84–R. of A.
Μηνόφιλος	133 (?)–88
†Μητᾶς	133 (?)–88
Μητρόδωρος	133 (?)–88; 84–R. of A.
*Μίκκαλος	133 (?)–88
Μιλτιάδης	133 (?)–88
Μινύ[κιος]	84–R. of A.
*Μοσχίων	84–R. of A.
Ξάνθιππ[ος]	133 (?)–88
Ξένων	190–133 (?)
Ξοῦθος	190–133 (?)
Οἰνοπί[δ]ης	190–133 (?)
*'Οχ - -	412–334
*[Π]αταικίων	84–R. of A.
Πανσανίας	84–R. of A.
Πεισι - -	412–334
†Πολίανθος	190–133 (?)
Πολυμη - -	412–334
Ποσείδιππος	412–334
*Ποσειδ - -	301–190
Πτολεμαῖος	84–R. of A.
*Πύθιος	84–R. of A.
'Ραβίριος	84–R of A.
Σίλλις	84–R. of A.
Σκύμνος	412–334
*Σκύμ[νος]	190–133 (?)
*Σκύμνος	84–R. of A.
*Στάφυλ[ος]	190–133 (?)
Στάφυλος	133 (?)–88
Στεφανήφορος	R. of A.–A. D. 68
Στρατόνι[κος]	133 (?)–88
*Σωσίβιος	84–R. of A.
Σωσίνικος	84–R. of A.
Σώστρα[τος]	412–334
Σώστρατ[ος]	190–133 (?)
*Σώστρατος	84–R. of A.
Τηλέμαχ[ος]	190–133 (?)
Τι. Κλαύ. Γοργίας. Δωροθέου	84–R. of A.
Τίμανδρος	190–133 (?)
†*Τιμοδάμας	190–133 (?)
Τιμοκλῆ[s]	190–133 (?)
Τίμων	190–133 (?)
Τρύφων	133 (?)–88
*Φαναγό[ρης or -ρας]	133 (?)–88
*[Φ]αινο - -	190–133 (?)
†*Φαινομ[ενός]	84–R. of A.
*Φάνης	84–R. of A.
*Φανόδικος	301–190
Φανοκλῆς	412–334
Φαῦστος	84–R. of A.; R. of A.–A. D. 68
†Φησῖνος	412–334
Φησῖνο[s]	84–R. of A.
Φίλιππος	190–133 (?)
*Φιλίστης	301–190
Φίλτης	412–334
Φίλτης	301–190
*Φίλων	301–190
†Φιττακ[ός]	412–334
Φοῖνιξ	412–334
*Φοῖνιξ	190–133 (?)
Χάρης	190–133 (?)
†Χίρων	301–190
*- - γικλο - -	301–190
*- - μοκλῆς	301–190
*- - όντιος	84–R. of A.
'Αναξαγο - -	412–334
*Γυθ[ί]ων	84–R. of A.
ΑΙΔΗΜΟ - -	84–R. of A.
ΛΥΚΙΔΕΟΣ	412–334
ΤΙΜΟΛ - -	412–334
ΦΑΝΑ - -	301–190

SUPPLEMENT.

Through the courtesy of Mr. J. G. Milne I am enabled to publish the four following bronze coins of Chios in his collection, of which two are quite new to me and the other two serve to clear up various points that had hitherto been obscure.

To take the coins in their order of succession according to my attributions they are as follows:

1. *Obv.*—Sphinx with curled wing seated r. [on plain exergual line].

Rev.—Amphora between ΞHNΩ[N] r., and XIOΣ l.

Æ. ↑↑ 11·00 mm. 11·4 grains (0·74 gramme).

This coin belongs to my type No. 65, first half of Per. IX, 190–133 (?) B.C. (p. 158, and Pl. VI. 11 and 12). Its style, lettering, and general appearance all agree with those of the other coins enumerated there, but the magistrate's name does not occur either among these small pieces or among the larger ones of type No. 62, which seem to be their contemporaries.

The name ΞHNΩN does occur, however, among the drachms of type No. 63 *a*, which I have also indicated as the probable contemporaries of No. 65, and the suggestion is now strengthened by the discovery of this coin. The form of Ξ employed is also in favour of the attribution since the same form is found on the drachm in question, while the coins only a little later in date (type No. 66 for instance with ZHNIΣ and ZHNOΔΩPOΣ) all show the form Z.

2. *Obv.*—Sphinx, in low relief and of poor style, seated r.

Rev.—Amphora with lip between ΓΛA - - r., and XIOΣ l.

Æ. ↑↓ 9·00 mm. 7·0 grains (0·455 gramme).

This is a new type, and probably represents a new magistrate, if not a new name as well.

In seeking for its correct attribution the field of choice is not a very wide one as the coin clearly belongs to the first century B.C. This limit can be still further reduced to the period between 84 and 30 B.C., since the coin does not belong to any imperial issue, and, in conformity with my theory regarding obverses in low relief, must therefore be confined to the autonomous issues that followed the exile in Pontus. In order to define its position still more precisely I am inclined to associate it with type No. 71, Per. X, 84 B.C.—Reign of Augustus (pp. 212–13, and Pl. VII. 4), in the same sense in which type No. 65 is connected with No. 62, and No. 68 with No. 67. In other words, I take it to represent a fraction of type No. 71, most probably its quarter.

It seems to have been the custom throughout autonomous days to strike bronze coins of two sizes,[1] and so far type No. 71, as one of the more important groups of coins issued at the Chian mint, is the solitary exception to this rule. The anomaly is now removed, in my opinion, by the little coin under consideration.

The low relief of the obverse, the lettering showing clearly marked "apices", and the amphora with a lip are all features characteristic of type No. 71. It is quite the smallest and lightest Chian specimen that I have come across, not even excepting type No. 93. These facts are also in favour of its attribution as a fraction of type No. 71, since that type in itself is both smaller and lighter than any of the other main bronze issues alluded to above, Nos. 54–6, 62, and 67.

There is no need to connect the magistrate's name ΓΛΑ - - with the Γλαῦκος of type No. 76 *β*, as the latter's issue is quite distinctive in style, and considerably later.

[1] See pp. 95, 137–9, 186–7, and 196–7.

3. *Obv.*—Sphinx with sketchy curled wing seated l. on plain exergual line, and lifting farther forepaw over bunch of grapes.

Rev.—Amphora between ΓΙΥΘΙΩΝ r., and ΧΙ ΟΣ l., with caps of Dioscuri.

Æ. ↑↑ 12·75 mm. 37·0 grains (2·40 grammes).

This coin removes all doubt as to the correct reading of the name on the specimen of the same issue at Athens that I have rendered ΓΥΘ[Ι]ΩΝ (p. 212, type No. 71). Mr. Milne's specimen also determines the symbol which is indistinguishable on the one at Athens. As will be seen by referring to my type No. 71 the caps of the Dioscuri were used freely as a symbol on this group of coins.

4. *Obv.*—Sphinx with curled wing, in higher relief than preceding, seated l. on plain exergual line. Before it bunch of grapes.

Rev.—Amphora between [Σ]ΟΣΙΝΙΚΟΣ (*sic*) r., and ΧΙ ΟΣ l., with owl standing r., head facing.

Æ. ↑↗ 14·00 mm. 41·7 grains (2·70 grammes).

In spite of the imperfect form of the Ω on this coin, I think it beyond all question that the name is intended for ΣΩΣΙΝΙΚΟΣ, as on the third issue of my type No. 75 (p. 215). This is confirmed by the fact that the real *omicrons* are of smaller size. The new feature now established is that the symbol on this issue is an owl, and not a wreath. The other three specimens known to me are all more or less worn, and I have wrongly taken the symbol on them for a wreath on account of its resemblance to the peculiar form of wreath found on the contemporary drachms of type No. 69 with ΔΕΚΜΟΣ and ΜΕΝΕ-ΚΡΑΤΗΣ.

A bronze coin at Athens with the name ΣΩΣΙΒΙΟ[Σ], my type No. 71, seemed to me to bear an owl as symbol, but I have marked it doubtful because, besides being indistinct,

it was the only instance then known to me of such a symbol in the whole Chian series. Now that the owl is certain on the coins under discussion there is no longer any reason to doubt its presence also on the practically contemporary issue with ΣΩΣΙΒΙΟ[Σ].

Mr. Milne is also the fortunate possessor of one of the rare *assaria* with ΦΑΥΣΤΟΣ of type No. 95 (p. 266), and of one of the still rarer *two-assaria* pieces with sphinx to right of type No. 114 *a* (p. 296).

The former weighs 129·6 grains (8·40 grammes), thus reducing the average weight recorded for coins of this type from 153·9 to 148·9 grains (9·97 to 9·65 grammes).

The latter exhibits the remarkable weight, for its class, of 203·5 grains (13·19 grammes), and is by far the heaviest *two-assaria* piece known (see table on pp. 323–4).

J. M.

1

2

3

4

EL

5

Period I B.C. 625-575 (?)

6

EL

7

EL

9

8

EL

10

11

12

13

14

Period II. B.C. 575 (?)-545.

CHIOS. PERIODS I, II.

1

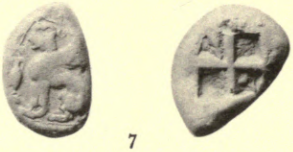
2

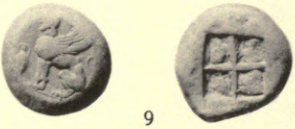
3

4

5

6


7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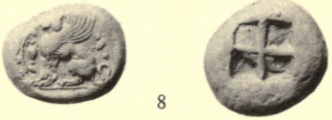
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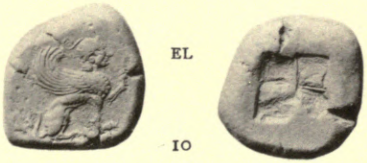
Period III. B.C. 545-500.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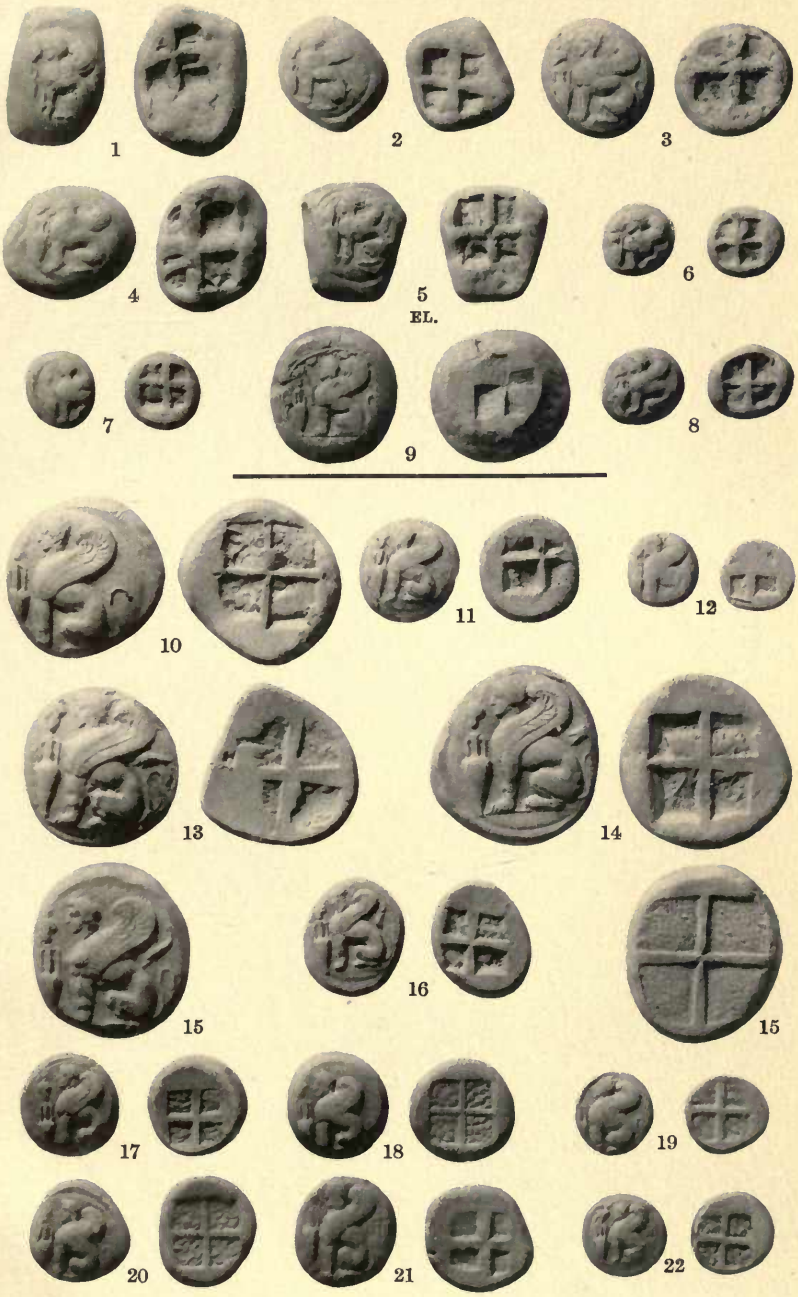
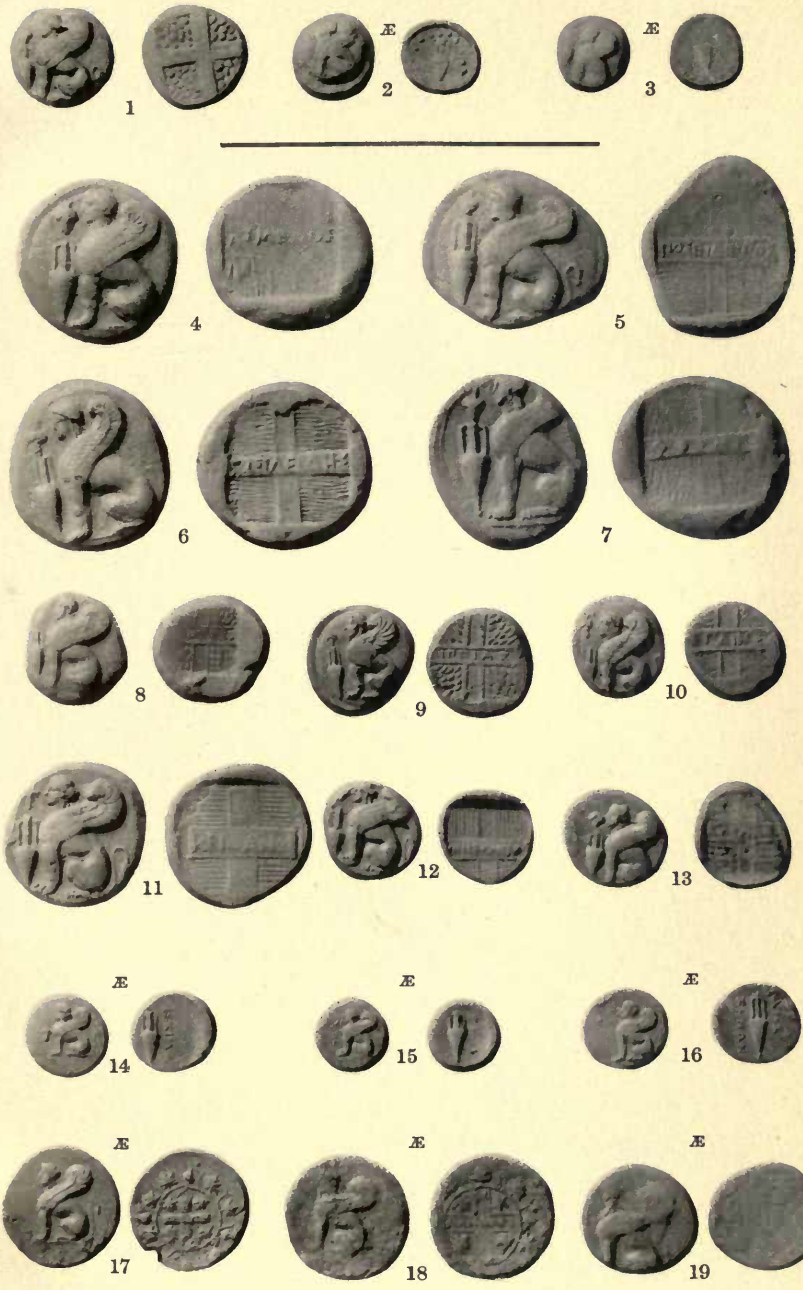
Period IV. B.C. 500-478.

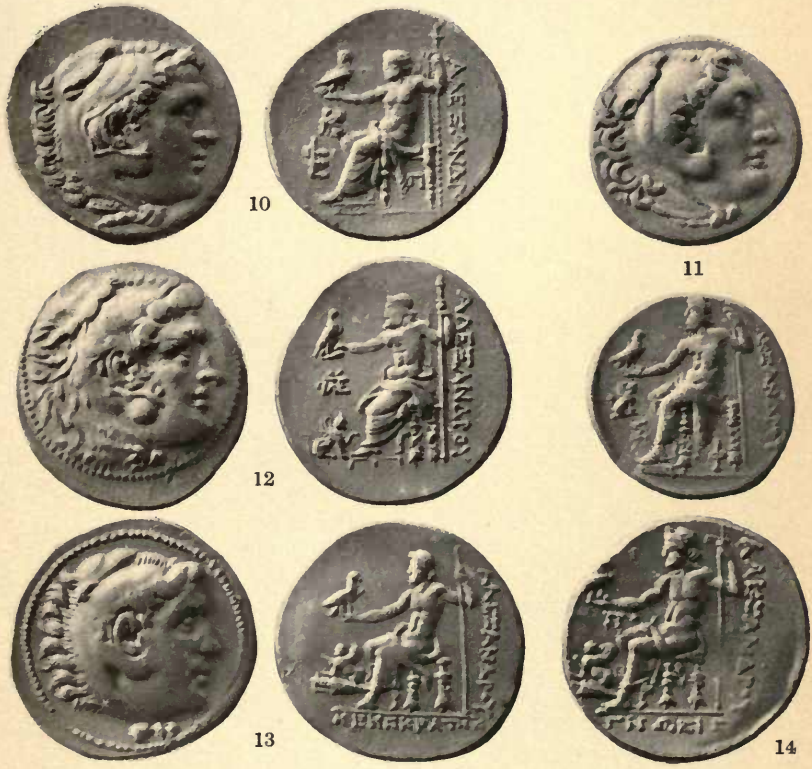
CHIOS. PERIODS III, IV.



CHIOS, PL. III. PERIODS V (478–431? B.C.); VI (431?–412).



CHIOS, PL. IV. PERIODS VI (431?–412 B.C.); VII (412–334 B.C.).



CHIOS, PL. V. PERIODS VIII (301–190 B.C.); IX (190–88 B.C.).

CHIOS, PL. VI. PERIOD IX CONTD. (190–88 B.C.).

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CHIOS. PL. VIII. PERIOD XI. *α* REIGN OF AUGUSTUS —A.D. 68. *β* A.D. 68-117.

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CHIOS. PL. IX. PERIOD XI. γ A.D. 117-150 (?). δ A.D. 150 (?)-268.

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